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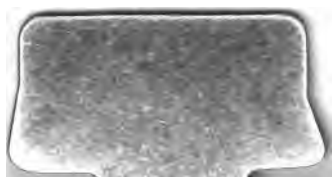
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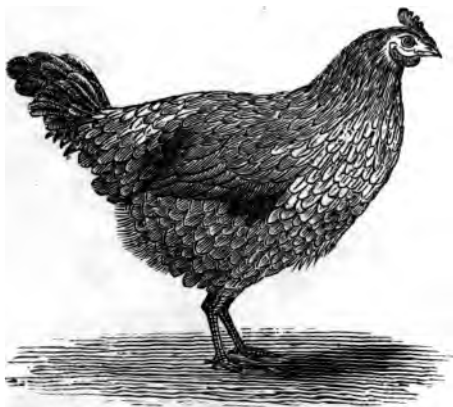
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# DOMESTIC FOWL.





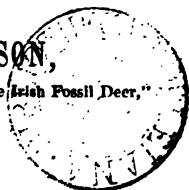


**HER MAJESTY'S COCHIN CHINA FOWL.**

**DOMESTIC FOWL:**  
**THEIR**  
**NATURAL HISTORY, BREEDING,**  
**REARING,**  
**AND**  
**GENERAL MANAGEMENT.**

**BY H. D. RICHARDSON,**

Author of an Essay on the "Natural History of the Irish Fossil Deer,"  
"Dogs," &c., &c., &c.



**SECOND EDITION, CORRECTED.**

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# DOMESTIC FOWL.

---

“————— How grateful 'tis to wake  
While raves the midnight storm, and hear the sound  
Of busy grinders at the well-filled rack ;  
Or flapping wing and crow of Chanticleer,  
Long ere the ling'ring morn ; or bouncing flails  
That tell the dawn is near ! Pleasant the path  
By sunny garden wall, when all the fields  
Are chill and comfortless ; or barn-yard snug,  
Where flocking birds, of various plume, and chirp  
Discordant, cluster on the leaning stack,  
From whence the thrasher draws the rustling sheaves.”

---

## CHAPTER I.

### STATISTICAL VIEW OF THE IMPORTANCE OF THE SUBJECT.

THE breeding and rearing of poultry has, of late years, greatly progressed in the estimation of the public, and has, in short, begun to assume a position, with reference to other departments of country life, much more appropriate, and more nearly approximating to that actually demanded by the importance of the subject, than it formerly did. Her Gracious Majesty has set the example to her subjects, and many of her proudest nobles have imitated her ; while, among all classes, ardent poultry fanciers are to be met with.

Some may not be fully aware of the *profitable* character of this interesting pursuit, and may deem that it can be followed only for the innocent recreation it affords. I shall, however, if possible, convince them to the contrary.

Poultry may be converted into money either while living or when dead ; or they may be bred, partly for the market, and partly with a view to the disposal of their eggs. Some consideration may be supposed due to feathers ; but that belongs not to the compass of this volume, as the fowl are disposed of by the breeder unplucked, and I have nothing farther to do with them, once they have left his hands.

First, as to the profit arising from the disposal of superfluous stock. This depends, of course, in a great measure, upon the

quality and character of the birds we keep; and hence, if the reader be advised by me, he will confine his fancy to the more valuable varieties. The expense of feeding and rearing a valuable fowl will not be found to exceed that required for a comparatively worthless one; at least, if at all, only as regards comfort and warmth, which, if properly procured, are not very costly. The selling price of Spanish and Malay fowl is about 30s. a pair, or, if sold separately, £1 for the cock, and 15s. for the hen. Poultry of very superior quality, especially such as have obtained prizes at any of the first-rate agricultural exhibitions, will fetch a higher price than this, and deservedly so, when we take into consideration the great care and expense that must have been requisite to produce so high a degree of perfection. I have known prize fowl of extraordinary excellence bring double the price I have here indicated. These prices may, however, be taken as the average.

The producer must of course allow a fair profit to the *dealer*; he cannot, therefore, reckon on more than two-thirds of the selling price, yet this will amply remunerate him.

In England, the profits accruing from the breeding and fattening of poultry have been longer understood than in Ireland; and, so far back as 1837, the London dealers often paid away upwards of £150 in a single day. At Wokingham, in Berkshire, in 1827, young fowl, even of the common dunghill sort, sold for 18s. a couple. From 4s. to 8s. for young and fat fowls, is still considered a moderate price. In London there is always a great demand for poultry, especially during the fashionable season, when twenty dozen or more are often required for a single festival, and if they were scarcer, and the price, consequently, higher, they would, doubtless, become in still greater request. Lord Althorpe (Earl Spencer), who always signalized himself by his patronage of every description of rural and domestic economy, instituted a poultry show, at Chapel Brompton, in Northamptonshire. The best turkey weighed, on this occasion (1829), 20 lbs. 4 oz.; Capon, 7 lbs. 14½ oz.; pullet, 6 lbs. 3½ oz.; goose, 18 lbs. 2½ oz.; ducks (per couple), 15 lbs. 10 oz. These, be it remembered, were fattened expressly for market. Since 1829, poultry shows have been established all over the kingdom, with a view to encourage the attention of the people to this branch of rural affairs. Amongst the most eminent of these shows, I may mention that under the direction of the Royal Zoological Society of London, that of the Highland Society of Scotland, that of the Royal Agricultural Improvement Society of Ireland, and that of the

Royal Dublin Society, with many others, all conducted on the most liberal and energetic principles.

It is not, however, to the fattening of poultry for the market that I would direct the consideration of my readers, so much as to the production of valuable, living fowl, and the sale of their eggs. The foreign breeds, and the *Dorking*, will always find a ready sale, and the expense of fattening has not to be deducted from the price. The Spanish are, perhaps, the best layers, and their eggs will fetch, wholesale, from 6s. to 9s. per dozen; by retail, from 12s. to 18s. A cross between the Spanish cock, and the common, or *Dorking* hen, is one of the most valuable fowl the peasant could have. Some very interesting experiments, relative to the production of eggs, were made about ten years ago by Mr. Mouat, of Stoke, near Guildford, in England. He got three pullets of the Polish breed on the 1st December, 1835, which had been hatched in June previous, and they commenced laying on the 15th of the same month. They laid from the 1st December, 1835, to the 1st December, 1836, between them the number of 524, being about 272 each. During the twelve-month they consumed 3 bushels of barley, 17 lbs. of rice, and a small portion of barleymeal and peas. The cost of this amounted to about 16s. 10d. The number of eggs being 524, gives about 31 eggs for every shilling expended, and, assuming the weight of each egg to be 1½ oz., we have a result of 41 lbs. of the most nutritious food that can possibly be procured at the low cost of 4½d. per lb.; or, if these eggs were, instead of being consumed, sold to a retailer, a profit of about 100 per cent. would have accrued to the producer to set off against the trouble (if it can be styled trouble) attending the management of the fowl.

A large proportion of the eggs which supply the London market are brought from France, and chiefly from the department of Calais, opposite the coast of Kent and Sussex; and hence, the price of eggs in that part of France is greatly enhanced, compared with what it is in other parts more remote from so good a market. A writer in a newspaper published some years ago, at Arras, after grumbling greatly at this dearth of an article, which, I suppose, was a favourite with him, enters into the following calculations as to the value of this branch of trade: "Out of 72,000,000 eggs annually imported into England from France, Germany, the Netherlands, and other countries, France contributes 55,000,000. Calculating the first-cost at 4½d. per dozen, England pays annually to France for eggs, about £77,000. A writer in the *Penny Magazine*, in the year 1837, calculates the

importations of eggs from all sources, at 69,000,000, for the year ending Jan. 5, 1837; and the duty, at 1d. per dozen, amounted to £24,048. In 1820, the quantity imported was 31,000,000; the duty yielding a revenue of £11,077. In 1827, the importations of eggs were nearly the same. "These 69,000,000 eggs required (continues the writer I have quoted) about 575,000 fowls, each producing 120 eggs on an average; all beyond this being required for domestic consumption. Assuming the grounds of this calculation to be correct, the 55,000,000 eggs supplied by France, are the production of 458,333 fowls, each of which furnishes ten dozen eggs, imported at a duty of 10d., being a tax to that amount on each fowl. Allowing twelve fowls to each family engaged in supplying the demand for eggs, the number of families thus interested will be 39,861, representing a population of 198,000. In the Pas de Calais there can scarcely be a larger proportion than two families out of every five, who are connected with the egg trade; and, if this were ascertained to be the real proportion, the population not directly engaged would be 457,000, which, with the 198,000 mentioned before, would furnish a total of 655,000, which is the population of the department." The usual mode in which these eggs arrive at the market, is through the intervention of an intermediate class of dealers, who go from house to house, visit cabin after cabin, collecting from each the accumulated store; and, in their turn, bring the produce of their tour to the egg merchant, who regularly ships them for their destination. A practice very similar to this prevails in Ireland. Mr. Weld, in his "Statistical Survey" of Roscommon, thus writes—"The trade in eggs, the value of which for export, according to Mr. Williams, in 1832, amounted to £500 a day, paid by England to Ireland, is carried on with considerable vivacity at Lanesborough, and also at Tarmonbarry. The eggs are collected from the cottages for several miles around by runners—commonly boys, from nine years old and upwards, each of whom has a regular beat, which he goes over daily, bearing back the produce of his toil carefully stowed in a small hand-basket. I have frequently met with these boys on their rounds, and the caution necessary for bringing in their brittle ware with safety, seemed to have communicated an air of business and steadiness to their manner, unusual to the ordinary volatile habits of children in Ireland. I recollect one little barefooted fellow explaining that he travelled daily about twelve Irish miles (above fifteen English miles). His allowance, or rather his gain, was 1s. upon every six

score of eggs brought in—the risk of purchase and carriage resting entirely on himself. The prices vary from time to time at different periods of the year; but they are never changed without previous notice to the runners. In the height of the season, the prices at Lanesborough were from 2s. 6d. to 4s. per 120; but towards the winter they rise to 5s. The eggs are packed in layers with straw, in such crates as are commonly used for the conveyance of earthenware. Each crate will hold about eighty-four hundred of six score—that is, 10,080 eggs, the first-cost being from £10 10s. to £16 6s. per crate. These are sent forward on speculation to Dublin, or, occasionally, at once to the English market, and a profit of £4 or £5 per crate is considered a fair remuneration. Sometimes it is more, and sometimes it is less; and there is risk in the trade. From Lanesborough the crates are sent overland to Killashee—the nearest place on the line of the Royal Canal—and forwarded by the trading boats to Dublin. At Tarmonbarry I saw several cars come in laden with crates of eggs, from the neighbouring districts on each side of the river. The dealers at Lanesborough, with whom I conversed whilst in the act of packing their crates, seemed quite surprised at my question, whether they ever used any artificial means of preserving the eggs; and could scarcely credit the account I gave them of the possibility of preserving their freshness for a considerable time, by simply anointing them with an unctuous substance, such as butter or lard. But in this process the whole of the eggs must be carefully covered; and it should be done soon after the eggs are laid.”\*

The following statements by M. Legrand, a member of the French Statistical Society, on the production and consumption of eggs in France, may not prove uninteresting, as it tends considerably to aid me in my endeavours to prove that, however insignificant in themselves individually eggs may appear, in the aggregate they are of no small importance. “In 1813, the number of eggs exported from France was 1,754,140. Between 1816 and 1822, the numbers exported rose rapidly from 8,733,000 to 55,717,500; and in 1834, the number had increased to 90,441,600. In 1835, 76,190,120 were exported for England; 60,800 for Bel-

\* This mode of preservation will not answer if the eggs be intended for hatching, as the pores of the shell being closed by the unctuous application, they would prove unproductive. If eggs are to be preserved for hatching, they have only to be buried in clean, dry, fine sand. In the western isles of Scotland, the ashes of turf or peat are used for this purpose, and with much success.

gium; 49,696 for the United States; 49,260 for Switzerland; 34,800 for Spain; and 306,304 to other parts of the world. The total amount of the exportations for that year was 3,829,284 francs. The consumption in Paris is calculated at 115½ eggs per head, or 101,012,400. The consumption in other parts of France may be reckoned at double this rate, as, in many parts of the country, dishes composed of eggs and milk are the principal items in all the meals. The consumption of eggs for the whole kingdom, including the capital, is estimated at 7,231,160,000; add to this number those exported, and those necessary for reproduction, and it will result that 7,380,925,000 eggs were laid in France during the year 1835."

M'Culloch, in his "Dictionary of Commerce," states, that France exported, for the consumption of London and Brighton alone, upwards of £76,000 worth of eggs; and this branch of commerce has at least doubled since the period when M'Culloch wrote.

According to a paper in the *Penny Cyclopædia*, quoted by Mr. Rutherford, in his "Essay on the Progress of Agriculture," there were exported from all Ireland, in 1835:—

|                          | Quantity.  | Value.   |
|--------------------------|------------|----------|
| Number of eggs . . . . . | 52,244,800 | £87,352  |
| Crates . . . . .         | 275        | 37,600   |
| Boxes . . . . .          | 10,625     | 31,037   |
| Total . . . . .          |            | £155,989 |

No mention was made of fowl; but 6,432 cwt. of feathers were exported in the same year, valued at £32,666. In the memoir published with the "Ordnance Survey," it is stated, that from the town of Londonderry alone, are annually exported £60,000 worth of eggs.

I have had a statement furnished me by Mr. P. Howell, Secretary to the City of Dublin Steam-Packet Company, to the following effect:—The number of boxes shipped by that company's vessels for London, during the year 1844-5, was 8,874; about the same number was shipped by the British and Irish Company—making a total of 17,148 boxes; each box contains 13,000 eggs, but occasionally large boxes are used, containing more than four times that number. This gives the result of 23,072,400 eggs, as annually shipped for London. To Liverpool were shipped 5,135 boxes, containing 25,566,500 eggs, making a total of the shipments from Dublin alone, during the past year, to the two ports of London and Liverpool, of 48,639,900, the value of which, at the average rate of 5s. 6d. per every 124 eggs (the return made),

gives a sum amounting to about £122,500, as the annual value of the eggs shipped from Dublin alone, and since this return the export of eggs enormously increased. Assuming the export of Dublin to be equal to one-fourth of the exports of all Ireland (a calculation reaching much above the mark), we have very close on £500,000, or half a million sterling, as the value of this branch of commerce to Ireland, showing also an increase of *four-fold* since 1835.\* No return has been kept of the number or value of the *poultry* that have, living or dead, been exported from Ireland; but it has been ascertained, beyond all possibility of doubt, that this branch of commerce has been, of late years, greatly on the increase—a natural consequence of the introduction of the superior foreign varieties of fowl—a circumstance due in its turn to the patronage of the valuable and highly praiseworthy societies to which I have already alluded.

In the last census returns, we find an enumeration of the live stock kept in the different counties of Ireland, and among the rest of poultry. The statement is given in their pecuniary value; but as this was estimated at sixpence a-head, we can easily calculate the number.

## CENSUS RETURNS, 1841.

| LEINSTER.       |   |         | MUNSTER.     |   |         |
|-----------------|---|---------|--------------|---|---------|
| Carlow,         | . | £2,550  | Clare,       | . | £1,031  |
| Dublin,         | . | 2,839   | Cork,        | . | 23,547  |
| Kildare,        | . | 3,986   | Kerry,       | . | 7,964   |
| Kilkenny,       | . | 6,962   | Limerick,    | . | 10,687  |
| King's County,  | . | 5,077   | Tipperary,   | . | 4,794   |
| Longford,       | . | 3,943   | Waterford,   | . | 14,907  |
| Louth,          | . | 3,385   |              |   |         |
| Meath,          | . | 7,566   |              |   | £62,830 |
| Queen's County, | . | 5,138   |              |   |         |
| Westmeath,      | . | 5,343   |              |   |         |
| Wexford,        | . | 6,389   |              |   |         |
| Wicklow,        | . | 3,045   |              |   |         |
|                 |   | £56,243 |              |   |         |
| CONNAUGHT.      |   |         | ULSTER.      |   |         |
| Galway,         | . | £10,753 | Antrim,      | . | £3,998  |
| Leitrim,        | . | 4,083   | Armagh,      | . | 3,829   |
| Mayo,           | . | 8,457   | Cavan,       | . | 6,609   |
| Roscommon,      | . | 7,814   | Donegal,     | . | 5,744   |
| Sligo,          | . | 4,109   | Down,        | . | 6,992   |
|                 |   |         | Fermanagh,   | . | 4,113   |
|                 |   |         | Londonderry, | . | 4,027   |
|                 |   |         | Monaghan,    | . | 5,314   |
|                 |   |         | Tyrone,      | . | 7,257   |
|                 |   | £35,216 |              |   | £47,883 |

Total in all Ireland, £211,455, the number at 6d. a head, 8,458,200; and since the above census, there has been a vast increase; besides which, I may state, that the country people were *suspicious* of the intentions of the census inquisitors, apprehending a *new tax*, and hence the *low estimate*.

\* By the same returns, I have ascertained that the export of eggs is now nearly doubled, viz., bordering on A MILLION STERLING.

To the Irish cottier, the rearing of poultry for the market, or the production of eggs, affords a means of obtaining many a comfort—nay, many a comparative luxury, that has long been unhappily beyond his reach. Much, has, doubtless, been already done in this way; but much remains still to be effected. It must not be argued, that because fowl have hitherto thriven without receiving any care or attention at the hands of their proprietors, no such care or attention is necessary. Why not *improve*? Oh, my dear fellow-countrymen, why still linger in the back ground, while your brethren of the sister kingdoms are constantly progressing? Why will ye alone turn a deaf ear to the voice of enlightenment, and mutter sullenly, “We’ll let well alone;” or, “Sure ’twas always so.” But let me pause; I am addressing a class to whom my little volume may be for ever a sealed book. I turn to their better-off neighbours—to their wealthier friends—to their landlords; and I trust that, even in poor Ireland, some philanthropic landlords are yet to be met with, and some well-disposed tenantry to be found, willing to try a cheap and profitable experiment when the means of doing so are placed within their reach. If only one person in every townland exerted himself to disseminate among his humbler neighbours such knowledge as I shall endeavour to convey in the course of this volume, they would treble the amount of their gains; nor need selfishness interfere with the good work, there would be an abundant market for all. Look to France—look to England! Why let France derive so great a revenue from a source that we need not, if we do not choose, suffer to slip through our own fingers? Let landlords only give a little advice and encouragement to their poorer tenantry; let them furnish each townland with a good MALAY, SPANISH, or DORKING cock, or with a brace of them, and let them give to such as deserve it, either from industry or any other description of merit, a few good eggs, and they will not only diffuse much benefit at a very trifling cost, but, in thus ameliorating the condition of the cottier, they will lay a foundation for the more regular payment of their own rents. I have shown that poultry breeding is by no means the unimportant branch of rural affairs it has so long been supposed; and while so many persons are *talking* so much about the improvement of the condition of our peasantry, it were desirable that a few would endeavour to do some practical good. I would, in fine, propose that this subject should at once be warmly and energetically taken up by those *capable of advancing it*, and that it should be viewed in its true

and proper light, viz., as one of the by-no-means least important INDUSTRIAL RESOURCES, not merely of IRELAND, but of the BRITISH ISLANDS.

## CHAPTER II.

### THE ORIGIN OF OUR DOMESTIC FOWL.

UNTIL a comparatively recent date, ornithologists classed the domestic Cock and pheasant species together; they now, however, and with greater propriety, separate them.

The Cock tribe—for naturalists employ the name of the male as a genetic term for the whole family of which they treat, styled by zoologists *Gallinae*, from the Latin word *Gallus*, signifying a cock—is distinguished by having the crown of the head usually naked, and the skin raised in a fleshy protuberance called a comb—a protuberance differing in size and form in different varieties. The base of the lower mandible (beak) is likewise furnished with fleshy lobular appendages called *wattles*; the tail is carried erect, and is composed of two planes folded together at acute angles. In the male, the central feathers of the tail are elongated, and fall gracefully over the others. The feathers of the neck are ample in quantity, are either long and hackled, or short and truncated. The plumage of the male bird is characterized by considerable brilliancy and beauty; that of the female is unobtrusive, matronly, and comparatively dull.

The pheasants have, on the other hand, their tail-feathers long and vaulted, the two intermediate quills longer than the lateral ones; and the cheeks covered with a soft and velvety tissue of very short feathers. Their constitution is also very delicate, and it is only by employing great care and caution, that they can be induced to breed in a state of domesticity; the cock tribe, on the other hand, is extremely hardy, and endures all changes of temperature and climate with impunity, as is proved by these birds being found to exist in nearly every country of the world, from the warmest to the coldest.

The domestic cock appears to have been known to man from the very earliest period. Of his real origin little appears to be known, and a total mystery rests upon his first introduction into Greece, or southern Europe. The cock has certainly ever held a

prominent position among birds; he occupied a conspicuous place at the shows of the Greeks and Romans, in the days of old; his effigy was engraved, and is still to be seen upon many of their medals and coins; and he has been expressly dedicated to several of their favourite deities—as Apollo, Mercury, Mars, and Æsculapius. The wisest Heathen that ever lived, the profoundest philosopher that ever flourished, unaided by the light of Christianity—the immortal SOCRATES—forgot himself in his last moments, and suffered the mire of superstition to tarnish the glorious wreath that wisdom had hung upon his brow, by directing a *cock* to be sacrificed to Æsculapius.

At a Roman banquet, this bird formed a principal dish, and poultry were even then carefully reared and fattened, as well as *crammed*. Nor was the pugnacious disposition of the cock even then unknown, or lost sight of as a means of amusing man; for cock-fighting was seriously entertained and encouraged as at once a religious and a political ceremony. The isles of Rhodes and Delos are said to have furnished the fattest birds for the table, as well as the most enduring and unflinching champions of the ancient cock-pit.

I have said that cramming was resorted to in ancient times, and my inference is justly enough deduced from reading of stringent laws for the suppression of the practice; nor does the mode of operating appear to have differed greatly from that practised in our days: at all events, the appetite of the birds, and the advantages to be derived from feeding in a dark place, were well understood. Witness the words of the Roman poet—

“Pascitur, et dulci facilis gallina farina,  
Pascitur et tenebris, ingeniosa gula est.”

MARTIAL, XIII. 62.

Cock-fighting, however it may be endeavoured to be excused, or even advocated by some writers, is, to the reflecting mind, an exhibition characterized by unmitigated brutality, yet, nevertheless, it happens strangely enough to owe its origin to classic times, and to one of the most learned and enlightened nations of antiquity—the GREEKS. It was introduced into these islands by the Cæsars, and it was, perhaps, the occasion of making us acquainted with the domestic fowl. For a long period, cock-fighting was practised in England as a royal pastime, and exhibited as such before public assemblies, with pomp and show, and it continued to be protected and sanctioned, both by law and custom, until about 1730. Up to

this time, it was, I suppose, in allusion to the well-known connection this bird had with St. Peter's denial of our Saviour, a favourite amusement at or about Shrovetide, and was even in vogue at public schools, with the express sanction of the schoolmaster, who furnished the boys with cocks for the purpose, at his own private expense, and as a mark of special favour. There were also, until very lately, two other barbarous amusements practised amongst us, in connection with this bird. One was styled "throwing at cocks," in which short sticks were flung at the bird, it being securely tethered to a stake, and he who knocked down the cock so effectually, that he was able to secure the poor bird before it could rise, had it for himself: in this game, three throws used to be allowed for two pence. The other barbarous practice to which I allude was "threshing the hen: in this case, a man had a hen tied round his neck, and was pursued round a room or barn by the *players*, who were previously blindfolded, and provided with sticks, with which they struck at the bird until it expired: when killed, it was dressed, and with a goodly store of pancakes and fritters, furnished a supper for the assembled party.

However much the cock has occasionally suffered, he has, on the other hand, to boast of having ever been regarded as a bird of the very highest consequence and respectability. He enjoyed the privilege of reclaiming the would-be-renegade St. Peter, when his voice reminded the saint of the prophetic warning of his heavenly Master. From time immemorial, his "shrill clarion" has "ushered in the morn;" and he has likewise had consigned to him the important power of dismissing ghostly visitants to their more appropriate dwelling in the tomb. Yes, his shrill voice at once puts to hasty flight all disembodied spirits that hover around us mortals, amid the stilly darkness of the silent night, whether they come to warn us to our good, or to terrify us with denunciations of evil. The Ghost of Hamlet's father is about to make a most important disclosure to his loving son, when he suddenly hears the *crowing* of the *cock*, on which he announces no less abruptly that he "snuffs the morning air," and has forthwith to leave half his say unsaid, and to return incontinent to all the gloomy and unrevealed terrors of his mysterious prison-house. As Shakespeare so beautifully writes, too, the office of cock-crowing is likewise at a certain season rendered still more important—

" Some say that ever against that season comes,  
Wherein our Saviour's birth is celebrated—  
The bird of dawning singeth all night long;  
And then, they say, no spirit walks abroad.  
The nights are wholesome—then no planets strike,  
No fairy takes, nor witch has power to harm;  
So hallowed, and so gracious is the time."

As I have already observed, to pronounce with any degree of certainty as to the original country of the domestic cock, or to refer *positively* to what *now known* wild species we are to look for his primitive type, would prove a labour equally difficult and presumptuous, the date of his original domestication belonging to so remote a period, as to be now wholly lost; but I can, I think, nevertheless, without presumption, describe those races of poultry that, still possessing a wild and apparently truly feral type, would seem to afford the strongest evidence of originality.

Several authors of the highest respectability and most unquestionable erudition—among whom I may name the *Compte de Buffon*, and *M. Sonnerat*—have endeavoured to show that all the varieties of domestic fowl with which we are now acquainted, sprang originally from one primitive stock. This opinion has obtained many advocates; and I may indeed here remark, that zoologists are in general apparently possessed with an anxious desire to curtail, as much as possible, the number of primitive types whence the several races of animals have sprung; with poultry, however, this desire must be frustrated. *Dampier* saw wild hens at *Puloncondor*, *Timor*, and *St. Jago*. *Sonnini* describes wild cocks which he saw in the forests of *South America*. *M. Temminck* procured wild cocks from *Java*, *Sumatra*, and *Ceylon*; and all these birds differed essentially, in character and appearance, from all our then-known domestic races—from those found by *Sonnerat* in the *Indies*—and finally from each other. And be it remembered, that these statements, like many other novelties, though scouted at the time by *Sonnerat* and others, who bigoted to their own pre-declared opinion, were of course interested in their contradiction, have since been amply and authoritatively confirmed.

I have neither the wish nor the intention to waste my own time, or that of my readers, by entering upon the useless, unsatisfactory and often interminable paths of controversy. I have formed my own opinion, and that after diligent reading and research, during which I carefully investigated all the arguments advanced *on either side of the question*: this opinion I consequently deem

to be correct, and shall, without farther comment, present it to my readers.

It has been very generally supposed, and most confidently asserted, that the domestic cock owes his origin to the great Jungle Fowl of India. I hold that he does not—that he, in fact, differs as much from that bird, as one fowl can well differ from another; they will certainly breed together, but so will the hare and rabbit.\* Read, however, the following description of the Jungle fowl, and find, if you can, its counterpart among our domestic stock:—

It is about one-third less than our common dunghill cock, being—the comb not included in the measurement—about fourteen or fifteen inches in height. The comb is indented, and the wattles certainly bear some slight resemblance to those of our common cock; but the naked parts of the head and throat are much more considerable. The feathers of the head and neck are longest on the lowest parts, and differ both in structure and aspect from those of other cocks, whether wild or tame. The Jungle hen is smaller than the cock, has neither comb nor wattles, and the throat is *entirely covered with feathers*—a very remarkable distinction from our domestic hens. The space round the eyes is naked, and of a reddish colour; the under parts are furnished with plumage, similar to that of the same parts of the cock, but more sober and dull. In addition to these peculiarities, I may also remark, that the Jungle cock possesses still another, which, however, the hen does not share with him, viz., the mid-rib and stem of a portion of the feathers is considerably expanded, forming a white stripe along the whole feather, as far as the tip, where it expands, becomes broader, and forms a gristly plate of a rounded form, whitish, thin, and highly polished; this gristly substance is still more remarkable on the wing feathers than on any other part; the tip indeed of the wing feathers forming a broad gristly plate, solid as horn, and as firm and unyielding to the touch. These plates are of a deep red colour, and, by their union, form a plate of red maroon, which looks as if it were varnished. Such is the Jungle fowl, and any other *single* original we may endeavour to indicate, would prove almost, if not wholly, as improbable. There are, however, two wild cocks in which we find sufficient points of resemblance to our domestic varieties, to answer the purpose of terminating our somewhat unsatisfactory search.

\* Philosophical Transactions.

I allude to the gigantic bird of St. Jago and Sumatra, and to the diminutive denizen of the wilds of Java. The reasons for supposing these two birds to be the veritable originals of our domestic poultry, may be summed up briefly thus:—

I.—The close resemblance subsisting between their females and our domestic hens.

II.—The size of our domestic cock being intermediate between the two, and alternating degree, sometimes inclining towards the one, and sometimes towards the other.

III.—We are led to this conclusion by our observations, relative to the nature of their feathers, and their general aspect, the form and mode of distribution of their barbs being the same as in the case of our domestic fowls.

IV.—In these two birds do we alone find the females provided with a crest and small wattles, characteristics not to be met with in any other known wild species.

Notwithstanding these analogies, however, domestication has so changed the form of the body, and of its fleshy appendages, that we might now find it rather a difficult task to refer each modern individual variety to its primitive stock: we must, in order to understand fully the causes that produce this difficulty, recollect the constant and frequently careless, if not absolutely injudicious, practice of crossing one bird with another, and the very frequently *promiscuous* intercourse that takes place in a state of domesticity. Then taking likewise into consideration changes of climate, variety of treatment, and other numerous causes, we shall cease to feel surprise at the difficulties that occur.

We cannot, however, find any difficulty in at once recognising the large and powerfully-limbed BIRD of ST. JAGO, and SUMATRA, the appropriately styled “Gigantic Cock,” or *Gallus giganteus* of zoologists, as the original type to which we owe the Paduan and Sancevarre varieties; birds that from their size and some points of form, are occasionally, by those that know no better, most erroneously confounded with the *Malay*.

To the more diminutive BANKIVA cock, we are, on the other hand, indebted for the smaller varieties, improperly designated Bantams, and the so-called Turkish fowl. By crossing, peculiarities of climate, management, &c., have been produced from these—

I.—The cock with small crest and wattles, furnished also with a *tuft of feathers*, which some writers have supposed to be pro-

duced by the juices that ordinarily go to furnish nourishment for the comb taking another form, and developing themselves in the production of the tuft. These approximate most nearly to the original Sumatra stock.

II.—The ordinary village cock, provided with comb and wattles, but no crest or tuft of feathers; this seems the intermediate variety.

III.—Diminutive cocks, ordinarily known as BANTAMS, with, in some varieties, the tarsi and toes covered with feathers; but this is not invariably the case.

I shall here describe the two races to which I have stated it as my opinion, that we are indebted for our domestic varieties.

The wild cock, justly termed the "*Gallus giganteus*," and called by Marsden the "*St. Jago Fowl*," is frequently so tall as to be able to pick crumbs without difficulty from an ordinary dinner table. The weight is usually from ten to thirteen or fourteen pounds. The comb of both cock and hen is large, crown shaped, often double, and sometimes, but not invariably, with a tufted crest of feathers, which occurs with the greatest frequency, and grows to the largest size in the hen. The voice is strong and very harsh, and the young do not arrive at full plumage until more than half grown.

There was, some years ago, in the Edinburgh Museum of Natural History, and probably still is, a very fine specimen of the *St. Jago Fowl*; it was said to have been brought direct from Sumatra, and, in most respects, closely resembled the common large varieties of domestic cock. In this specimen the comb extended backwards in a line with the eyes; was thick, slightly raised, and rounded on the top, almost as if it had been cut; the throat bare, and furnished with two small wattles. The neck and throat hackles of a golden reddish colour, some of them also springing before the bare space of the throat; the hackles about the rump, and base of the tail, pale reddish yellow, long and pendent; the centre of the back, and smaller wing coverts, of a deep chestnut brown; the feathers having the webs disunited; the tail very full, and of a glossy green colour. The greater wing coverts of a glossy green, with the secondaries and quills of a faint golden yellow; underparts of a deep glossy blackish green, with the base of the feathers a deep chestnut brown, occasionally interrupted, so as to produce a mottled appearance. This bird measured very nearly thirty inches in height, comb included, and, of course, allowance must be made for the shrinking of the skin; the living bird must have been upwards of thirty-two inches high.

The Bankiva fowl is a native of Java, and is characterized by a red indented comb, red wattles, and ashy grey legs and feet. The comb of the cock is scalloped, and the tail elevated a little above the rump, the feathers being disposed in the form of tiles or slates; the neck feathers are gold colour, long, dependent and rounded at the tips; the head and neck are of a fawn colour; the wing coverts a dusky brown and black; tail and belly black. The colour of the hen is a dusky ash-grey and yellow; her comb and wattles much smaller than those of the cock, and, with the exception of the long hackles, she has no feathers on her neck. These fowl are exceedingly wild, and inhabit the skirts of woods, forests, and other savage and unfrequented places. These Bankiva fowl are very like our Bantams, and, like those pretty little birds, are also occasionally to be seen feathered to the feet and toes.

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### CHAPTER III.

#### VARIETIES OF DOMESTIC FOWL.

IN describing the varieties of domestic fowl I shall commence with a bird that has, perhaps, been too much lauded, having, in fact, been regarded as the *ne plus ultra* of excellence in the poultry yard. This *ultra* high degree of estimation in which the fowl, of which I speak, has been held, is scarcely, however, justified by experience. I allude to the—

#### I. MALAY FOWL.

Of this fowl I have even heard persons assert it as their firm belief, that it is the very chief, nay, stands at the head of our domestic races, if it be not, indeed, the original stock whence all the other varieties have sprung. The Malay fowl has, as its name implies, been brought, originally, from the peninsula of that name at the southern point of the Continent of India. He stands very high on the legs, is long-necked, serpent-headed, and is in colour a dark brown, streaked with yellow; his form and appearance are grand and striking in the extreme, and bearing such an *aspect*, he is no small embellishment to the poultry yard of the

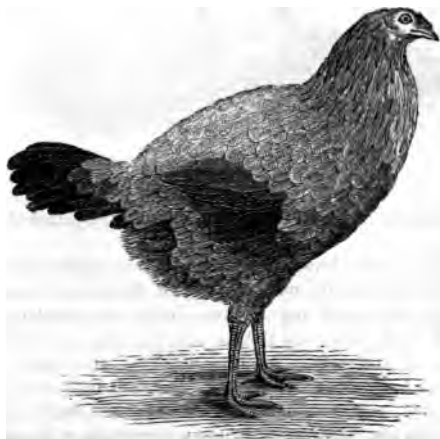


THE MALAY COCK.

wealthy fancier. This fowl is also frequently called the *Chittagong*.

The Malay fowl, however, that were originally imported into these countries were by no means such birds as I could recommend to the notice of any breeder—their size consisting chiefly of offal, as neck, legs, and thighs, and the flesh, moreover, being dark coloured and oily. Another variety—that represented by the cut—has been since introduced, which is well worthy of our attention, not, however, so much from its own individual excellence, as from the vast improvement a cross with it imparts to our ordinary breeds. In this point of view, the Malay has, indeed,

proved a most valuable addition to our poultry-yard—the cross-breed possessing all the hardiness of our native domestic fowl, with the gigantic size of the foreign stock. Since the introduction of this variety, the export trade in poultry, both living and dead, has considerably increased; indeed, without introduction of fresh blood, as with all breeding stock that are bred *in and in*, fowl will become puny and degenerate; and nothing can be a better cross than the lately introduced Malay. It is said that a cross between the Malay and the Spanish is the most valuable; it may be so, for the one is calculated to give size to the body, and the other to improve the egg; but they still exhibit the *delicacy* of constitution characterizing the foreign bird, as well as its difficulty of rearing its young, while our common domestic fowls, if crossed with the Malay, present size, improvement of egg, and strength of constitution. The cross I would myself recommend, would be the Malay with the *Dorking*, whereby you will have a *climatized* bird of immense body, small offal, and very prolific. As a *fancier*, I prefer all poultry in its original purity of blood; but if the question be of a *cross*, I am satisfied that there is none so well calculated to effect all we desire as that I recommend, nor is there, perhaps, any so well adapted to assist the small farmer and cottier in their praiseworthy attempts at improvement.



THE MALAY HEN.

## II. THE JAVA FOWL,

Resembling the Malay in shape, but presenting in portions of its plumage the colouring of the Dorking. I hold this, its common appellation, to be a misnomer, and regard it as the result of a cross between Malay and Dorking. In qualities it resembles the Malay, but is not so valuable as a cross with other breeds.

## III. THE SHAKEBAG.

A good many years ago, there used to be a variety of fowl much in request in England, called the "Shakebag," or the "Duke of Leeds' Fowl," his grace, of that name, about sixty or seventy years ago, having been a great amateur breeder of them. Whether this nobleman originally imported the stock, or whence he got them, if he did import them, I have not been able to ascertain. These fowl were as large as the Malays, but differed from them in the superior whiteness and tenderness of their flesh, as also in their very superior fighting abilities. Mowbray thus writes of one in his possession—(Treatise on Poultry, p. 21)—"The only one I ever possessed was a red one in 1784, weighing about ten pounds, which was provided for me at the price of one guinea, by Goff, the dealer, who then lived upon Holborn Hill, in London; and who, at the end of two years received him back at half a guinea, having allowed me, in the interim, threeshillings and sixpence each for such thorough-bred cock chickens as I chose to send him. At that period, the real 'Duke of Leeds' Fowl' had become very scarce, which induced the dealers to put shakebag cocks to Malay hens; by that means keeping up the original standard size, but entirely sacrificing the colour and delicate flavour of the flesh." The name of this fowl seems to have arisen from the old practice of cock-fighting, when *the fancy* used to challenge *all comers*, having their cock concealed in a bag, and the tremendous size and power of the Duke of Leeds' fowl proving so far superior to all competitors, thus usually ensuring conquest, and eventually obtaining for it the name, *par excellence* of *Shake-bag*, since corrupted into SHACKBAG.

The same writer (Mowbray) likewise informs us that this fine bird was not unfrequently substituted for a turkey, and this, as he facetiously adds, to the great convenience of poulterers and innkeepers of Workingham and elsewhere."

This "Shakebag" or "Shackbag" fowl, so justly lauded by

Mowbray, but with the real origin of which he has confessed himself unacquainted, unless, indeed, as an improved breed of dunghill, would appear, if we can judge from the description of Dickson, and other writers on poultry, to have been neither more nor less than an offshoot of the great Paduan, Polish, or St. Jago fowl; the immediate domesticated descendant of the "*Gallus giganteus*" already described; and I have particularly to request my readers on no account to confound it with the Malay. This same Paduan or Polish fowl, was described, about two centuries and a half ago, by the celebrated naturalist Ulysses Aldrovand, as being "very handsome, being adorned with five different colours—viz., black, white, green, red, and yellow; the body black, tinged with green, and tail of the same colour; with the base of the feathers white; some of the quill-feathers of the wings also white above; the head being adorned with a black coloured crest or tuft; the eyes surrounded with red; comb small; beak and feet yellow." This fowl would, indeed, seem to have been almost identical with the great wild bird of St. Jago and Sumatra.

#### IV. THE SPANISH FOWL.

This fowl is clad in black plumage, but possesses quite the reverse of black flesh. By some it has been regarded as a variety of the Polish, and consequently nearly related to the primitive stock. I, on the contrary, regard these birds as the result of the highest possible *artificial* culture, and adduce, in support of my opinion, their unusually large comb and wattles, characteristics not commonly to be met with among the primitive varieties.

The Spanish fowl is, perhaps, a little inferior in *size* to the old "Skakebag," but in every other quality, wherein excellence and value are to be looked for (as, thank God, we are no longer cock-fighters) it is more than that bird's equal. The colour of the Spanish fowl is a prevailing black, and the feathers of the legs, thipins, and belly are particularly decided in their hue, and of a *velvety* aspect. It is a stately bird, and of a grave and majestic deportment; and is, in either utility or beauty, to be surpassed by none of its congeners. One of the most striking characteristics of this fowl is a *white cheek*, and the comb and wattles are singularly large, simple, and of a very high colour, the feet and legs are of a leaden colour, except the soles of the feet, which are of a dirty fleshy hue: this is a fowl well deserving the attention *of the breeder*. They have long been naturalized in these islands,

and are consequently well "*climatized*," and present no peculiarities of constitution that would suggest difficulties in either hatching or rearing. As table birds they hold a place in the very first rank—their flesh being particularly white, tender, and juicy, and the *skins* possessing that beautifully clear white hue, so essential a requisite for birds designed for the consumption of the gourmand. The hens are likewise layers of the first order; and of all naturalized or indigenous varieties of fowl, these lay the largest and the best flavoured eggs. They are, besides, prolific to a degree, extremely easily fed, and, in short, I know of no fowl I would rather recommend to the notice of the breeder; but let me here observe, that *spurious* specimens of this fowl are often in the market, which will occasion, perhaps, an equal outlay at their original purchase, will decidedly cost as much to feed, be, per-



THE SPANISH COCK.



THE SPANISH HEN.

haps, *harder* to rear, but will most unquestionably *not* bring in an equal *return* in the way of profit. By applying, however, in the first instance, to a breeder of known respectability, such as Baker, in England, or Nolan, in Ireland, you will avoid much disappointment; and though you may conceive the price demanded of you to be high, it may not, perhaps, at the same time, be higher than what you might have foolishly paid for a bad article, and even should you have to lay out a few shillings extra, do so willingly, and, recollecting the old proverb, avoid being ‘Penny wise and pound foolish.’”

#### V. THE SOUTH AMERICAN “COLOMB,”

A very noble fowl, presenting the appearance of a cross between Spanish and Malay, but possessing so much nobility and stateliness of aspect that I am loth to regard it otherwise than as a distinct and very primitive variety. The eggs are particularly large. My attention was first drawn to these fowl by Dr. Bull, of Cork, to whom I take this opportunity of returning thanks for a magnificent brace of chickens sent me some months ago.

## VI. THE DORKING FOWL.

The Dorking, or, as it has been called, the five-toed fowl, would appear to owe its name to its having been chiefly bred and cultivated in a town of Surrey, of the same appellation. That the peculiarity of *five* toes, or, in other words, of two hind toes instead of one, is to be regarded as a distinctive character of the breed, is by some writers questioned, and by others wholly denied. For my part, I should say, that wherever this characteristic is absent, a *cross* has been at work.

The writer on "Poultry," in *Rees' Encyclopedia*, is most positive in asserting the possession of five toes by the Dorking fowl as "all a mistake;" but this person, whoever he may have been, does not appear to have had even a correct idea of the fowl about which he wrote; for instance, he says, that the Dorking fowl has a *long* body! on the contrary, the body of the Dorking fowl is *round, plump, and short*, resembling as much as possible, that roundest, and plumpest, and prettiest of birds, the *linnet*.

I do not, however, mean to assert that this possession of two hind toes instead of one, has *never* occurred in any other family of fowls except those bred at Dorking, in Surrey, for Aristotle has mentioned the existence of a similar peculiarity among certain fowl in Greece, and both Columella and Pliny assert the existence of such in their time in Italy, so also does Aldrovand; and these authors lived hundreds of years ago; and, oddly enough, these breeds were remarkable, as are our own Dorking, for being good layers\* and good sitters. Were they not evidently their originals? Doctor Bechstein mentions a variety with *six* toes, and I have seen fowl with *seven* toes; but I think these are mere monstrosities.

The colour of the Dorking is generally pure white on the entire neck; the prevailing colour also of the body is white, spotted or spangled with black; these colours will sometimes merge into a grey or grizzle, with occasionally black bars at the extremity of the tail. These birds have been long prized, and it is now many years since their superiority over our ordinary domestic varieties was originally discovered and appreciated; they were first noticed, and the variety adopted, by the Cumberland breeders; whence they were soon brought into Lancashire and Westmoreland, and gradually spread over all England. They have not as yet become

\* Though undoubtedly good layers, they are, however, better sitters.

generally known in Ireland, but they are, nevertheless, to be found in many parts of that country.\* Whether, however, from injudicious treatment, or imperfect feeding, or change of climate, or from whatever cause, it is certain that, when met with far from their native place, they appear greatly to have degenerated from their original superiority of character.

#### VII. THE SPANGLED HAMBURGH.

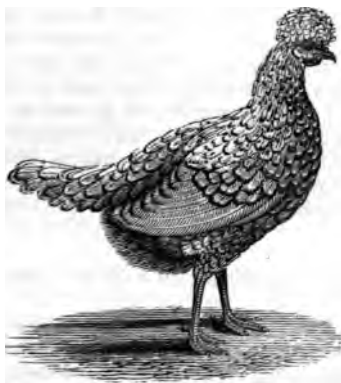
In describing this fowl I cannot avoid again remarking, that most persons who have written upon the subject of poultry, appear to have been mere compilers, and to have possessed but little, if any, practical acquaintance with the subject of which they undertook to treat; for example, in the case of the very bird now under consideration, I find in "Dickson on Poultry," p. 15, the Hamburg fowl described as possessing a singularly



THE SPANGLED HAMBURGH COCK.

\* I cannot refrain from particularising the noble breed of Dorkings, in possession of Mr. Reilly, of Belmont, as also those of Captain Arbuthnot, and my friend, Doctor Duke, of Ballitore. The Dorking seems to have become naturalized in Ireland with peculiar facility, and many bred there are far superior even to the original natives of Surrey.

large comb and wattles; and while the writer states it to be a variety of the *Paduan* or *Polish*, he adds—"the nourishment expended in that to form a crest of feathers goes to enlarge the comb and wattles." Now, it so happens that the *Hamburgh* fowl have a large top knot, with but very small comb and wattles, and another peculiarity that shall be described in its proper place. I do not follow blindly the descriptions furnished by my predecessors, however highly I may conceive their writings are, in many respects, to be esteemed. I am this moment writing my description of the *Hamburgh* fowl from two beautiful specimens as they stand before me on the table in the house of their owner, my friend Mr. Nolan, of Dublin. These fowl gained the prizes at the last show of the Royal Agricultural Improvement Society of Ireland, from a host of very worthy, but still far inferior competitors; consequently, in my case, no blunder can possibly occur.



THE SPANGLED HAMBURGH HEN.

The *Spangled Hamburg* fowl are divided into two varieties, the distinctive characteristics being slight, and nearly altogether dependent upon colour; these varieties are termed the *GOLDEN* and *SILVER* spangled. The former will suffice for me to describe, as the points of form, &c., excepting only *colour*, are identical.

*The Golden Spangled Hamburg Fowl* is one of no ordinary beauty; it is well and very neatly made; has a good body, and

no very great offal. On the crest, immediately above the beak, are two small fleshy horns, resembling, to some extent, an abortive comb. In some specimens this crest is divided into more than two horns; but two are the ordinary and more legitimate number. Above this crest, and occupying the place of a comb, is a very large brown or yellow tuft, the feathers composing it darkening towards their extremities. Under the insertion of the lower mandible, or that portion of the neck corresponding to the chin in man, is a full, dark-coloured tuft, somewhat resembling a beard. The wattles are very small. In the *golden* variety, the hackles on the neck are of a brilliant orange, or golden yellow; and the general ground-colour of the body is of the same hue, but somewhat darker. The thighs are of a dark brown, or blackish shade, and the legs and feet are of a bluish grey.

In the *Silver Spangled* variety the only perceptible difference is, that the ground colour is a silvery white. The extremity, and a portion of the extreme margin of each feather, are black, presenting, when in a state of rest, the appearance of regular semi-circular marks or *spangles*—and hence the name of “Spangled Hamburg,” the varieties being termed *gold* or *silver*, according to the prevailing colour being bright, yellow, or silvery white. These fowl have good plump bodies, a good skin, are good layers, and lay good-sized eggs. They are, therefore, little less remarkable for utility than beauty, although certainly, in mere excellence of flesh and as layers, they are not equal to the Dorking or Spanish varieties.

#### VIII. THE POLISH OR PADUAN FOWL.

Of the Polish fowl there are three sub-varieties: one of which, however, would appear to be nearly, if not altogether, extinct, even in its native country. This fowl is, perhaps, the most unchanged from the primitive stock of any we are now acquainted with, being beyond any reasonable doubt the immediate and almost unmixed descendants of the “*Gallus giganteus*,” or great wild cock of St. Jago. The three varieties of Polish fowl are—

I.—*The Spangled Polish*—a bird of extraordinary beauty, extremely scarce, and very difficult to be procured. This fowl presents a symmetrical and regular combination of the following colours, viz.:—A bright *orange*, a clear *white*, a brilliant *green*, and a *jetty black*, softened down with a rich and pure brown,

every feather being tipped with white, so as to produce the effect whence has been derived the term of SPANGLED. The colour of the hen is a prevailing golden yellow, with white spangles like the cock. In the cock the thighs are black, and are, likewise, though in a less degree, marked and spangled with black and golden yellow. The hinder end of the body is furnished with green and orange-brown hackles, and the tail is carried well up. The flesh of these birds is of good quality, and they are very prolific. They also fatten quickly, and have, by some, been compared to the Dorking for similarity of flesh and other excellencies of quality. I, however, must unequivocally award the preference to the latter bird, independent of the enhanced price occasioned by the far greater scarcity of the former.

II.—The second variety of the Polish fowl is the well-known black fowl, with a white tuft on the crown. Mowbray describes this fowl with accuracy, but errs in supposing its original country to have been Holland, they having been brought from St. Jago by the Spaniards, to whom they owe their first introduction into Europe. The colour of these birds is a shining black, and both cock and hen have the white top-knot. The head is flat, surmounted by a fleshy protuberance, out of which spring the crown feathers constituting the tuft. These are remarkably good layers, and will, if kept warm, lay nearly throughout the year; and it is this cause, probably, that has induced Mowbray and other writers to confound them with the Dutch breed, which, from a similar circumstance, have been styled "*Every-day layers*."

III.—This variety of Polish fowl is the most pure and unmixed of the three. This is, indeed, the uncontaminated descendant of the great fowl of St. Jago. Its colour is a brilliant white body, with a jet black top-knot. This variety was described by Aldrovand, and more recently by Dr. Bechstein. I have never myself seen a specimen of the breed, and have every reason to suppose it to be extinct, or very nearly so. Mr. Nolan, the celebrated Irish breeder, informs me that he wrote to various persons in Germany connected with the poultry fancy, in order to procure some of them at any cost, but without success, receiving for answer that they were no longer to be had.

#### IX. THE DUTCH EVERY-DAY LAYERS.

*These have, by many inexperienced writers, compilers rather,*

been confounded with the preceding, but are, in point of fact, as different from them as they can possibly be. Instead of being destitute of comb, and carrying in its place a tuft of feathers on the crown, the cock of this interesting variety possesses what is called a **ROSE COMB**—that is to say, a comb formed of a great number of plies or folds of single comb, united into one broad, serrated, and fleshy mass. The wattles are also extremely large and heavy, and are partly double, or furnished with a second lobe or fold. The colour of the cock is, as usually occurs, more brilliant than that of the hen. His body is of a fine reddish brown hue, with neck hackles of a bright and rather deep golden yellow. These birds present, likewise, two distinctly-marked varieties; the difference, however, depending chiefly on colour. When, as I have described, the colour of the body is a *golden yellow*, streaked or spangled with blackish, or deep brown markings—an appearance caused by the dark colour of the ends of the feathers—the bird is styled the “Golden Spangled;” and when the ground colour is white (the other circumstances of shading remaining the same), the bird is styled the *Silver Spangled*.

These fowl have received the name of “Every-day,” or “Ever-lasting layers,” from the circumstance of their unwillingness to hatch, in consequence of which they lay an egg nearly all the year through, and, if properly cared for, and warmly housed, even amidst the frost and snow of the most inclement winter. Some say that the eggs of these fowl are not in general so large as those of ordinary poultry, nor equally substantial and nutritious. This might, indeed, considered theoretically, seem a very obvious consequence of so unusual a demand upon the bird’s natural resource; but, *practically*, I am prepared to assert, that there is really no such remarkable difference, and that it never existed, save in the imagination of the writers to whom I allude, or in the false reports to which they lent their ear.

#### X. THE BARBARY FOWL.

Dickson describes this variety as “of a pale or dun colour, spotted about the neck sparingly with black, and the feathers at that part very full. On the crown is a large, full tuft of feathers, the same in colour with the body.” The bird thus described may certainly have come from Africa, or Mr. Dickson may have been informed to that effect; but the true BARBARY FOWL is a very *different bird*. This fowl is now, by the way, naturalized in

Spain, and the specimen that I describe was brought recently from that country. It is very tall, remarkably heavy, with not much offal, and a firm muscular quality of flesh. The comb presents a most singular appearance, viz., that of two large and fleshy combs growing up together, and enclosing a smaller and apparently abortive comb between their folds. The colour is a prevailing black, with some green and brown markings upon the wings; it is booted and feathered upon the legs like the Bantam, and thus clothed to the very toes; the cheek or ear-piece is white, like the Spanish breed. This is a bird of vast body, and almost gigantic proportions, displaying great boldness of carriage and confidence of demeanour; but I cannot pause here: I must reluctantly pronounce the Barbary fowl (and I judge from a prodigious specimen in possession of Mr. Nolan) as one of the most perfectly unmitigated pieces of ugliness I have ever yet witnessed amongst the varieties of poultry. It is, in fact, among poultry what a very ugly negro is among ourselves; yet, doubtless, if we may judge from the stateliness of the fellow's carriage, the opinion I have just expressed, relative to his appearance, would, by no means, be agreed to by himself, had he the gift of speech.

#### XI. THE OSTRICH, OR COCHIN CHINA FOWL.

This gigantic bird has only very recently been introduced into Great Britain; and it is to that Royal Patroness of poultry fanciers, the nature-loving VICTORIA, that we owe their addition to our stock of domestic fowls.

Two fine specimens of the Cochin China fowl, but rather aged, were sent over by her Majesty to the cattle show of the Royal Dublin Society, April, 1846, and were subsequently presented to the then Lord Lieutenant of Ireland, Lord Heytesbury.

The breed have since become comparatively well known, and are now kept by several private persons and breeders; amongst others, Mr. Nolan possesses several very noble specimens.

This variety of fowl so far surpasses both in size and power all that we have ever yet seen in the shape of poultry, as to lead many who have been permitted to inspect them, to refer them to the family of BUSTARDS. They are, however, genuine poultry. Their general colour is rich, glossy brown, deep bay; on the breast is a marking of a blackish colour, and of the shape of a horse-shoe; the comb is of a medium size, serrated, but not deeply so, and the wattles are double. Besides their gigantic size,

however, these fowl possess other distinctive characteristics, among which I may mention as the most striking, that the wing is jointed, so that the posterior half can, at pleasure, be doubled up, and brought forward between the anterior half and the body. I am not aware whether trial has, as yet, been made of the flesh; but from the white colour, and delicate appearance of the skin, I feel confident that they would afford a luxurious and a princely dish. The eggs laid by the hen of this variety are large, of a chocolate colour, and possess a very delicate flavour. They are very prolific hens; Mr. Nolan's frequently laying two, and, occasionally, three eggs on the same day and within a few moments of each other. One of the hens, "Bessy," exhibited by her Majesty, laid 94 eggs in 103 days. What a noble cross might be produced between this prodigious variety, and the plump, short-bodied, and useful Dorking.

## XII. THE GAME FOWL.

The game fowl is one of the most gracefully formed, and most beautifully coloured of our domestic breeds of poultry; and in its form, aspect, and that extraordinary courage which characterizes its natural disposition, exhibits all that either the naturalist or the sportsman would at once recognize as the beau ideal of *high blood*—embodying, in short, in its individual person, all the most indubitable characteristics of gallinaceous aristocracy.

We do not possess any very satisfactory record of the original country of the game fowl; but I am disposed to cede that honour to India, the natives of which country have always been remarkable for their love of cock-fighting; and we also know that there still exists in India, an original variety of game cock, very similar to our own, but inferior in point of size. As to the date or occasion of their first introduction into the British islands, we know nothing certain; but I think it probable that we owe it to the invasion of Julius Cæsar, the Romans having been very fond of the sport of cock-fighting. Some have asserted the existence of the breed amongst us prior to the above era, but they can adduce no proof of their assertion, and both probability and plausibility are against *their* opinion, and in favour of *mine*.

The earliest record of cock-fighting in England, is in the time of Fitzstephen, who wrote the life of Thomas à Becket, in the reign of Henry II., about A.D., 1100.

*The game fowl is somewhat inferior in size to other breeds, and*

in his shape he approximates more closely to the elegance and lightness of form usually characteristic of a pure and uncontaminated race. Amongst poultry he is what the Arabian is amongst horses, the high-bred short-horn amongst cattle, and the fleet greyhound amongst the canine race.

The flesh of the game fowl is of a beautifully white colour, tender and delicate in the extreme. The hens are excellent layers, and although the eggs are somewhat under the average size, they are not to be surpassed, if, indeed, equalled, as to excellence of flavour. Such being the character of this variety of fowl, it would, doubtless, be much more extensively cultivated than it is, were it not for the difficulty attending the rearing of the young brood—their pugnacity being such, that a brood is scarcely feathered before at least one-half is killed or blinded by fighting.

Buffon, and other continental writers on natural history, have given this fowl the not unappropriate title of the “English Fowl;” and truly it is in England that the very best specimens of the breed are to be met with. I cannot here avoid mentioning the justly celebrated breed in possession of the Right Honourable the Earl of Derby—a breed that has been preserved in that noble family for many generations, and that has never yet been known to turn tail, notwithstanding the pertinacious adherence of a *white feather* to the pile—a blemish that no breeding has been able to eradicate, but which, notwithstanding the well-known proverbial prejudice to the contrary, has, in this instance, been the never-failing concomitant of courage.

#### XIII. THE BANTAM.

The original of the Bantam is the Bankiva fowl, a native of Java, several specimens of which are kept by her Majesty, at Home Park. These are very beautiful, of a perfectly white colour, and exceedingly small size, and they exhibit some peculiar traits of habit and disposition that we cannot overlook. Amongst other strange propensities, the cocks are so fond of sucking the eggs laid by the hen, that they will often drive her from the nest in order to obtain them—nay, they have even been known to attack her, tear open the *ovarium*, and devour its shell-less contents. In order, if possible, to subdue this unnatural propensity, her Majesty's keeper—evidently a man of no ordinary intelligence and acquaintance with the business of his office—gave the cocks first a hard-boiled, and then a marble egg to fight with, taking care, at the same time, to prevent their access either to the hens or to any

real eggs. After a few weeks of useless toil the birds gave up their unprofitable labour, and, as the keeper had anticipated, wholly abandoned for the future, attempting the destruction either of the hen or of the actually *laid* egg. Another strange and horrible propensity is exhibited in a passion for sucking each other's blood. This passion chiefly exhibits itself when the birds are moulting, when they have been known to peck each other naked, by pulling out the new feathers as they appear, and squeezing with their beaks the blood from the bulbs at the base. The intelligence of the keeper has found means to overcome this propensity likewise. That person observing that the birds were subject to great heat of the skin, and that its surface occasionally became hard and tightened, conceived that in such cases the hard roots of the feathers being drawn into a position more nearly at right angles with the body than at ordinary times, the skin and superficial muscles were thus subjected to an unusual degree of painful irritation; and it immediately occurred to him, that the disagreeable habit in question was simply a provision of nature for the relief of the suffering birds. Impressed with this idea, he tried the effect of artificial relief, by washing with warm water, and the subsequent use of *pomatum* to the skin. His experiment was successful, and the birds' plumage has been ever since untouched.

As might be inferred, when such a propensity to devour the eggs exists in the male bird, the female is a *secret layer*. Indeed, no domestic bird is so shy, or so assiduously seeks seclusion in everything that concerns her maternal care. In this respect these fowl show their identity with the original bird of Java—the feral *Bankiva* cock, whose wildness of disposition I have already mentioned. These birds are both good layers and good sitters. One in her Majesty's possession sat for nine weeks on three successive sets of eggs.

The fowl commonly known as the Bantam, is a small, elegantly formed, and handsomely tinted variety, evidently not remotely allied to the game breed. This bird is furnished with feathers to the toes. There is another variety ordinarily known as

#### XIV. SIR JOHN SEBRIGHT'S FOWL,

Which has its legs perfectly naked to the toes, and approaches in form more nearly to the game breed. The high-bred cock of this breed should have a *rose comb*, full hackles, a well-feathered and

well-carried tail, a stately, courageous, demeanour, and should not be quite a pound weight. If a Bantam's prevailing colour be black, the plumage should present no other tint whatever; but the favourite colour is a golden yellow, the feathers edged with black, the wings barred with purple, tail feathers and breast black. The Bantam possesses high courage, and will fight with great resolution, frequently beating cocks many times his own weight. With a game fowl he has, of course, no chance, not only from inferiority of size, but from a want of *method* in his style of striking, and, also, from the fact, that not possessing the true *game*, he will generally discover when he has had the worst of it, and seek for safety in flight.

#### IV. THE CREEPER

Is a very small variety of Bantam, with very short legs. It is of no practical utility; neither, indeed, are any of the Bantams, unless occasionally to be substituted by a knowing hotel keeper for a chicken—an artifice that—as on such occasions it is usually an old, carriony cock that suffers—the teeth will readily discover, from the difficulty, not to say impossibility, of mastication.

#### XVI. THE TURKISH FOWL

Is another variety of Bantam, having a whitish body, with black belly and wings, the body streaked with gold and silver, and the legs bluish. The hen is as usual of a less showy plumage, her colour being white, speckled here and there with black, the neck yellowish, and tail of one colour.

#### XVII. THE JUMPER.

In addition to these diminutive races, there is another mentioned by Buffon, as being so short-legged that they are compelled to progress by *jumps*. These are, however, somewhat larger than the common Bantam, and approach more nearly in size to the dunghill. They are prolific, and excellent sitters, the hen having been known to hatch two dozen eggs, and even more at one time. These dwarf fowl were described by Aldrovand more than two hundred years ago, and, also, much farther back by the celebrated Roman naturalist, Pliny, under the designation of the *Adrian breed*. Those described by Buffon were in his time peculiar to *Brittany*.

## XVIII. THE RUMKIN OR TAIL-LESS FOWL.

This bird is distinguished by the total absence of the caudal extremity. Some suppose it to be a distinct species descended from the wild breed of Ceylon. Among the wild birds the comb is not indented; it is so with the tame: and is, in the latter case, frequently double. Buffon supposed this fowl to be a native of America, but Dickson declares him to have been in error, having been misled by the circumstance of these birds being domesticated very commonly in Virginia. Others have supposed this fowl to be a native of Persia, and Latham even names it the "Persian Cock." It is, however, of very little practical importance whence the Rumkin originally came, the bird possessing neither good flesh, nor affording good eggs: its place is the caravan, or the zoological garden. At the last Dublin Society's show, in Kildare-street, some very perfect specimens were exhibited—not, however, for competition—by Master Newcomb, of Ely-place.

## XIX. THE SILKY FOWL.

This fowl, remarkable for the silky texture of its plumage, is a native of China; it is nearly always of a white or cream colour; it is likewise to be found in Japan. Some modern writers have sought to establish a claim for the silky fowl to a distinct species; but their opinion is evidently erroneous. They are good layers, but the eggs are small. For any practical purpose these birds are quite useless, and are, also, carefully to be excluded from the poultry yard, on account of the rapidity with which a cross from them destroys the value of our common Poultry, darkening the colour of the skin, and causing them to deteriorate both in appearance and utility. Mr. Nolan has a little hen of this breed which lays an egg regularly every morning, nearly throughout the year. They are, however, little sought after except as curiosities.

## XX. THE SIBERIAN FOWL,

Called by some the Russian, and said to be a native of that country, is distinguished by tufts of dark-coloured feathers springing from each jaw, and others, longer and fuller, springing from the lower mandible like the Bustard, in the form of a beard. The

colour varies: some are white, some blue or black, and others are coloured like the game fowl. The flesh of this variety is white and good. They are, likewise, good layers, are hardy, and easily fed. Dickson says that they are great favourites in Scotland. At the Royal Dublin Society's show, April, 1846, specimens of this fowl were exhibited by Mr. Nolan, for, I believe the first time, in this country. This fowl is sometimes coloured like the Spangled Hamburg—some gold and some silver spangled. When thus coloured, they are esteemed very valuable.

#### XXI. THE FRIZZLED FOWL,

Is so called from the crisped and frizzled appearance of its feathers, and does not, as some have erroneously asserted, derive its name from a corruption of Friesland, at one time improperly conceived to be its native country. It is a native of Java, Japan, and other parts of Eastern Asia; it is smaller than our common fowl—is very susceptible of cold, and is, on that account, very difficult to rear. These fowl are particularly sensible of wet, and the chickens especially; they are very shy and wild, and, like the Rumkin, are objects for the attention of the showman, rather than of the poultry breeder.

#### XXII. DUTCH FOWL,

Of a white colour, streaked and spangled with black; excellent fowl whether as layers or for the table: originally imported from Holland. This is called by Dickson the "Pencilled Dutch Fowl," from its marking. It is not the same as the birds I have already described, under the name of "Every-day layers; although to an unpractised eye, very like them.

#### XXIII. THE NEGRO FOWL.

This is a native of Africa, but is, by no means, to be confounded with the "Barbary fowl" I have already described. The Negro fowl is distinguished by having black comb, wattles, skin, bones, and feathers. The flesh is, however, white and tender. This bird is another good specimen for the curious, but anything but a desirable inmate of the poultry yard, as besides being ugly and unprofitable, he has the same objectionable quality of speedily causing deterioration among your poultry, that I have already stated to be the property of the Silky fowl.

## XXIV. THE BARN-DOOR FOWL.

I describe this fowl separately ; for, although the designation of "Barn-door fowl" may be applicable also to the Dunghill, I regard the former appellation as possessing a far more extended signification.

The Barn-door fowl embrace, of course, several sub-varieties. Few of our high-priced breeds, except in some places the Dorking and the Polish, have as yet become so common as to be included in the list ; but crosses of the common Dunghill bird with the Malay, Dorking, Polish, or Spanish, are very frequently to be met with. The most desirable cross is that of the common hen with the Spanish or Dorking cock ; the Polish ranks next, or, perhaps, the Malay.

The ordinary domestic fowl is likewise to be regarded as in a great measure a primitive variety, and is, by no means, to be confounded with the Dunghill. Doctor Bechstein enumerates eight distinct varieties of barn-door fowl, viz. :—

- 1.—The fowl with the small comb.
- 2.—The crowned fowl.
- 3.—The silver coloured fowl.
- 4.—The slate blue fowl.
- 5.—The chamois coloured fowl.
- 6.—The ermine-like fowl.
- 7.—The widow ; with tear-like spots on a dark ground.
- 8.—The fire and stone coloured fowls.

The distinctions will be perceived to consist almost solely in colour ; and the Doctor has omitted another and very ordinary inmate of the farm-yard, viz., the *booted* fowl, represented by the Bantam. It will then be seen that the Barn-door fowl, whatever marks of being an original variety it may have formerly exhibited, is now likely soon to lose all such marks from the effect of crossing, and I hope, I may add, of *judicious* crossing, whence is sure to arise improvement—never deterioration.

## XXV. THE DUNGHILL FOWL.

The Dunghill fowl occupies in the poultry yard precisely the position of the cur-dog in the kennel, being, in fact, the produce of a *miscellaneous* intermixture of most of the ordinary domestic varieties, and constantly differing in its appearance with the acci-

dents which may have influenced its parentage. As layers, these are, by no means to be compared with any of the pure varieties; and if they can at all be said to be worth their keep, it is because they are so easily fed, as they will in a country place cater almost entirely for themselves; and if they do indeed require further feeding than they can procure, a few handfuls of potato skins, and other refuse, will suffice. The chickens are also hardy, and easily fattened for the table; and the Dunghill is also frequently the only fowl the poor man can obtain.

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## CHAPTER IV.

### POULTRY HOUSES.

HAVING now described the varieties of fowl, it is necessary that my readers should be told a little about forming a suitable habitation for the reception of their stock; and although I design showing how very readily, and at how small a cost, a sufficiently good, and in every respect suitable poultry house may be erected, still I cannot, of course, desire to recommend any restrictions to those whom Providence has favoured with wealth. There exists no reasonable objection to such as can afford it gratifying their taste, either as to extent of accommodation or elegance of structure. The poor man, on the other hand, need not lay out one farthing, and still may be as successful in his operations as his more wealthy neighbour. It is my object to write for all classes; for although the poor man may not be able to procure this little volume, cheap though it be, his kind landlord, or the enlightened steward may do so, and employ its pages for his instruction. I shall accordingly describe several sorts of poultry house, from that on the most perfect and extended scale, to that which can only boast of *barely* answering the purposes for which it is designed—from that, in short, the erection of which has formed a pleasing and harmless recreation for the leisure hours of royalty, to that which has been coarsely laid against the humble gable of the mud-built cabin.

I have already stated, that our Gracious Sovereign Queen Victoria stands first on our list of poultry fanciers, and I shall, therefore, describe first—

## THE ROYAL POULTRY HOUSE.

The royal poultry house is situated on the farm attached to Windsor Castle, called the "Home Farm," in her Majesty's private demesne of Home Park. The farm is situated in a secluded part of the Home Park, and is well sheltered. This establishment originated with George III., in 1793; but the buildings, which were then thought sufficient for all purposes, were, in 1843, found by her present Majesty to be wholly inadequate to the proper carrying out of more modern discoveries and improvements.

The present establishment was erected under the immediate superintendence of her Majesty and the Prince, aided by Colonel Wemyss, Lord Lincoln, and her Majesty's clever and intelligent bailiff, Mr. Engall. Every department exhibits marks of refined taste, consummate skill, and an intimate acquaintance with the habits and wants of the birds for whom the buildings were erected. Indeed I think I may confidently assert that, while it is universally admitted, that the Royal farm and dairy of Home Farm are among the chief embellishments of the domain of Windsor, so the Royal poultry house is, perhaps, the fairest ornament of Home Farm.

The royal poultry house is a simple, but at the same time beautiful building of a semi-Gothic character. It consists of a central pavilion, flanked by roosting places, and breeding and laying nests. The pavilion is used as a spot whence the fowl can be conveniently inspected, and is surmounted by an elegant pigeon house, remarkable for its lining of looking-glasses, in which pigeons delight to gaze, and before which they are constantly pruning and dressing themselves.

The ground slopes in front towards the Park, and is divided by slight wire fences into yards, as walks or places for the daily exercise of the fowl; these wards are laid out in gravel walks or grass-plots, the former leading to the entrance of the houses. The apartments are large and airy; the fittings and general economy of the house have been carefully regulated with reference to the natural habits of the birds; an equal temperature is constantly maintained; and in form and structure the nests are made, as much as possible, to resemble the close and bramble-covered *recesses which would form the dwelling of poultry in a state of nature.*

## LORD PENRHYN'S POULTRY HOUSE.

Perhaps one of the most splendid poultry houses that has ever been erected is that of Lord Penrhyn, at Winnington,\* in Cheshire. It consists of a regular and handsome front, about one hundred and forty feet in length, having at each end a neat pavilion, with a large arched window. These pavilions are united to the centre of the design, by a colonade of small cast iron pillars, painted white, which support a cornice and a slate roof, covering a paved walk, and a variety of conveniences for the poultry, for keeping corn, eggs, &c. The doors into these are all of lattice work, painted white, in green framing. In the middle of the front are four handsome stone columns, and four pilasters, supporting also a cornice and a slate roof, under which, and between the columns is a very beautiful Mosaic iron gate; on one side of this gate is an elegant little parlour, most tastefully papered and furnished; and at the other end of the colonnade, a very neat kitchen; behind is a large, neatly paved court, with a pond and pump in the centre. The whole fronts towards a little paddock, where the birds are turned in between meals. The strictest attention is paid to cleanliness, and notwithstanding that about six hundred poultry of different kinds were kept in the establishment, neither dung nor litter was ever to be seen lying about for a moment. This building is of brick, except the pillars and cornices, and the lintels and jambs of the doors and windows; but the bricks are concealed by a covering of fine slate brought from his lordship's quarries in Wales.

## MR. ENGLAND'S POULTRY HOUSE.

In a paper published in *Transactions of the Highland and Agricultural Society of Scotland*, for 1833, Mr. England gives a plan of a poultry house which presents some features, at that time, regarded as novelties, but which have since come into general use. This house was divided into separate wards, each ward calculated to accommodate twenty-four hens, and one cock, with a yard attached to it of about twelve feet square. The houses were supplied with nests, which had small platforms in front, and were reached by commodious ladders. He had also provided what he

\* I do not know whether or not this beautiful building continues to be appropriated to its original use.

called a *stormhouse*, for shelter in bad weather, and a *dry bath-house*, or a place supplied with fine sand, in which fowl delight to roll or bathe, and which they likewise swallow, in order, by its mechanical attrition, to facilitate the process of digestion.

#### MR. WAKEFIELD'S POULTRY HOUSE.

Mr. Wakefield, who kept a very large stock of geese, ducks, turkeys, and poultry, near Liverpool, adopted a very simple, but, as the result showed, most successful plan of operation. He had an acre of ground enclosed with a fence, about six or seven feet high, formed of boards or slabs set on end, and fastened by two rails, one at the top and the other at the bottom; these stakes were *pointed sharp*, which prevented the fowl from attempting to fly over. Within this enclosure were lodging places, slightly built, but at the same time well secured from wet, with small separate enclosures for each sort of poultry, and a stream running through each.

Mr. Beatson, in a communication to the Board of Agriculture (*Trans. vol. i.*) remarks, that nothing more is necessary for the keeping poultry with profit and advantage, beyond having a small shed or light building, formed in some warm, sunny, and, at the same time, sheltered situation, fitted up with proper divisions, boxes, lockers, or other contrivances for the dwelling of the different sorts of birds, and places for their laying in; and he is unquestionably right. This and *cleanliness* suffice.

"Cleanliness," says Mr. Beatson, "with as free a circulation as possible, and a proper space for the poultry to run in, is essential to the rearing of this sort of stock with the greatest advantage and success, as in narrow and confined situations they are never found to answer well." (*Com. to Board of Agriculture, vol. i.*)

In every establishment for poultry rearing there ought to be some separate crib or cribs into which to remove fowl when labouring under disease; for not only are many of the diseases to which poultry are liable highly contagious, but the sick birds are also regarded with dislike by such as are in health; and the latter will generally attack and maltreat them, thus at the very least aggravating the sufferings of the afflicted fowl, even if they do not actually deprive them of life. The moment, therefore, that a bird is perceived to droop or appear pining, it should be removed to one of these infirmaries.

*Separate pens* are also necessary to avoid quarrelling among some of the highly blooded breeds, more particularly the game

fowl. They are also necessary when different varieties are kept, in order to avoid improper or undesired commixture from accidental crossing. These lodgings may be most readily constructed in rows, parallel to each other; the partitions may be formed of lattice work—they will be rather ornamental than otherwise, and the cost of their erection will be but trifling. Each of these lodgings should be divided into two compartments, one somewhat larger than the other. One compartment is to be close and warm for the sleeping room; the other, and the larger one, should be *airy* and open, that the birds may enjoy themselves in the daytime; both must be kept particularly dry and clean, and be well protected from the weather.

In selecting a site for a poultry house, attention should be paid to the quality of the soil on which it is about to be erected, as well as the aspect it is to face. The soil should be of a warm and dry character, sloping gently towards the front, that the wet may run off. The aspect should be such as will secure the greatest possible average quantity of daily sunshine; and it should be as sheltered as possible from sharp or biting winds or from the driving rain. Every poultry house should be provided with a sufficient quantity of small sand; or, if such cannot be procured, clean ashes are a good substitute, pieces of chalk are also a useful, nay, necessary adjunct.\* Some horse dung or chaff, with a little corn through it, is also a source of much amusement to the birds; and recollect, that *amusement*, even in the poultry yard, is materially conducive to health. The ashes and litter should be frequently changed, and had better also be kept in little *trenches*, in order that they may not be scattered about, and may not thus contribute to give a dirty or untidy appearance to the yard.

If the court be not supplied with a little grass plot, a few squares of fresh grass sods should be placed in it, and changed every two or three days. If the court be too open, some bushes or shrubs will be found useful in affording shelter from the too perpendicular beams of the noon-day sun, and probably in occasionally screening the fowl from the rapacious glance of the kite or raven. If access to the sleeping room be, as it ought, denied during the day, the fowl should have some shed or other covering, beneath which they can run in case of rain: and, lastly, there should be a constant supply of *pure fresh water*—if a stream can be coaxed through the court, so much the better.

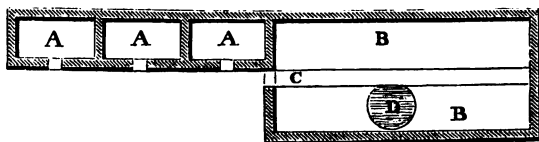
\* When fowl are kept in *rooms*, and deprived of sand or chalk, a considerable *per centage* of the eggs will be laid *soft*, or destitute of a perfect shell. Crude lime should be kept from the walks of fowl, it acting as a poison.

*Keep your yard as clean as possible.* Fowls frequently suffer much annoyance from the presence of vermin, and a hen will often be compelled to quit her nest when sitting, in order to get rid of them. This is one of the uses of the *sand* or *dust* bath; but a better remedy, and one far speedier and of more certain efficacy, has been discovered at Windsor by her Majesty's feeder. The laying nests at Windsor are composed of dry heather (*Erica tetralix*), and small branches of hawthorn, covered over with white lichen (*Lichen raugiferinus*). These materials, rubbed together by the pressure and motion of the hen, emit a light powder, which making its way between the feathers to the skin, is found to have the effect of dislodging every species of troublesome parasite.

The fowl-house should also be frequently and thoroughly cleaned out, and it is better that the nests be not fixtures, but formed in little flat wicker baskets, like sieves, which can be frequently taken down, the soiled straw\* thrown out, and themselves thoroughly washed; fumigation, at no very remote intervals, is also highly to be commended.

Nothing is of more importance to the well being of your poultry than a good airy walk; for half-bred birds, brought up under such an advantage, will often totally eclipse the very primest stock whose exercise may have been early restricted.

#### GROUND PLAN OF MY POULTRY HOUSE.



- A Night lodge for the fowl.
- A Do. for turkeys.
- A For geese and ducks.
- B B Garden or walk for all the fowl.
- C Path gravelled.
- D Water tank.

\* Hay is objectionable, as tending to the production of a parasite of the *louse* tribe, the annoyance of which will even drive the hen from her nest.

## MY OWN POULTRY HOUSE.

In my own poultry house I followed the most simple plan possible. I had on one side of my garden a long shed, partly built of masonry and partly of wood, well secured from wet, and partly faced with wire. The height of this shed was about five feet at the eaves, and six and a-half feet at the coping, which rested against the wall of the yard. This shed was separated into smaller apartments by boarded partitions, and each apartment had its own door well secured by a lock. These apartments, in dimensions about four feet by three and a-half, served as the night-houses. I had for a walk a strip of garden, well sheltered by fruit trees, about thirty yards long, by six or seven broad; in the centre ran a path, strewed with fine sand, from which all coarse gravel, and such sharp matters as might injure the feet of the fowls, were carefully removed, and the ground at each side was sown with grasses\* and such vegetables as, while their roots might occasionally conduce to the comfort or the domestic economy of the house, their tops might afford salutary food to the fowl. I could not get a stream of water through my garden, but, as a substitute, I had a wide but shallow wooden vessel sunk in the ground in such a manner as that, while it was level with the surface, and so far resembled a real pond, though, of course of small dimensions, still at the front it presented an open side, in which was a *cock*, by means of which the dirty water might readily be let off, and the vessel cleaned. With these simple appliances, I had as fine fowl as any one need desire to look at in their walk, or to see before them upon the table. The erection, then, of a poultry house, and the providing of a suitable walk, are by no means so serious or troublesome a matter as some have supposed. The night house for the fowl (A No. 1) is supplied with perches, not quite cylindrical, but only so on the upper surface, and not rising one above the other, but in the manner of a ladder; it is likewise supplied with laying nests, as already described.

## THE COTTIER'S POULTRY HOUSE.

Perhaps as good a mode of rearing fowl as can be adopted is the good old custom of suffering them to roost on the rafters of the

\* I do not think that the value of Italian rye-grass, as a food for poultry, is generally known.

room in which the cottier keeps his fire; and it is owing to the warmth thus afforded to the birds, that, during winter, when eggs are scarce, and bring consequently a high price, they will be procurable from the humble cabin, when they have long vanished from the elaborately constructed, but less *warm*, poultry house of the more affluent fancier.

Should circumstances, however, render the keeping poultry in the cabin objectionable or unadvisable, a very sufficient place may be erected for them against the outside of the cabin wall; and, if possible, the part of the wall against which the little hut is erected should be that opposite which the fire place is within—thus securing the necessary warmth. If shelter be required, it can be obtained by means of a few bushes, or a wall of sods; the neighbouring roads will serve as an ample walk; the nearest stream will slake their thirst. A few laying-nests may be placed in a warm corner of the cabin, and the poultry of the poor cottier will thrive as well, and yield as great a profit, as those kept in the best appointed establishment in the kingdom.

Among the most necessary appendages to every poultry house is the HEN LADDER. This is a sort of ascending scale of perches, one gradually a little higher than the other; yet not exactly *above* its predecessor, but somewhat in advance. By neglecting the use of this very simple contrivance, many valuable fowl have been lost or severely injured, by attempting to *fly down* from their roost—an attempt from succeeding in which the birds were incapacitated by the bulk of their body preponderating over the power of their wings. This would not, of course, take place among wild birds in the forest; but we are not to forget that our *improvements* in the breed of all animals tend to remove the varieties on which we expend our care, gradually farther and farther from their primitive condition, and conduce to deprive them of much of their native activity; and, as our improvements proceed, to render them ultimately almost helpless: hence the necessity for such artificial aids as the hen ladder; and perhaps even in the cabin this accessory is more absolutely required than in less humble poultry houses, on account of the great height of the roosting place.

The cottier must be equally attentive to cleanliness, as if his poultry house were a model of elegance in point of structure. This, with proper food, and a good stock to start with, will be likely to ensure him a profit far beyond his expectations.

## CHAPTER V.

## SELECTION OF STOCK, AND CHOICE OF COCK, AND HENS FOR SITTING.

COLUMELLA, a Roman\* writer, who lived about two thousand years ago, is, perhaps, among the earliest authorities we can cite on the subject of the breeding and management of poultry, and he thus delivers himself on a very important subject—viz., the number of hens to be allotted to each individual cock:—

“Twelve hens shall be enough for one good cock, which will cause the progeny to be more of a colour; but yet our ancestors used to give only five hens to one cock—thus producing a diversity of colour. To have the hens all of one colour is preferable, some white, and these are considered the best layers.”

Bradly, in his *Farmer's Director*, advises one cock to be left with seven or eight hens, and hints that if a greater number be allowed him, the eggs will not prove fertile. The author of the *Complete Farmer*, and the writer of the article on poultry, in *Rees' Encyclopedia*, recommend the same number.

M. Parmentier, a very eminent French writer, says that one cock is *much more* than sufficient for fifteen, or even twenty hens, provided he be a young, vigorous, and healthy bird.

Those who breed game fowl for combat, and whose object is, of course, the production of strong chickens, limit the number to four, or at most five. Mr. Mowbray says, that in winter, or cold and damp weather, a cock should only have four hens. M. Bosc (*Encyclopedia Methodique*) says, that in spring alone should any cock have fewer than twenty hens. Mr. Dickson says, and in my opinion very justly, that the number of hens allowed to one cock should vary with the object you have in view.

If you look for profit to the production of eggs alone, I should say that one cock, if a stout, young, and lively bird, may have as many as twenty-four hens. If, however, you want to obtain strong and thriving chickens, you must restrict him to six, or at most, eight. If your object be the improvement of a worn-out or degenerate breed, the fewer hens you allot to one cock the better, and you should not, at any rate allow him more than three.

\* A Spaniard, however, by birth.

## AS TO THE SELECTION OF A GOOD COCK.

The same old writer I have already quoted, and who, by the by, has frequently been plagiarized wholesale without the slightest acknowledgment—COLUMELLA—thus instructs us on this subject —“ It is not good to keep a cock if he be not stout, hot, and knavish, and of the same colour as the hens are, and with as many claws; but in his body to be higher raised, his comb to be high and red as blood, and straight withal; his eyes black or azure colour; his beak short and crooked, with a grey crest, shining like red or white, and all his feathers, from the head to the breast, to be of a changeable colour, varying like gold or yellow; his heart large and big; his muscles on his wings big like one's arms, with long wings; his tail fair and long, with two ranks of crooked and rising feathers; and to be oft crowing is a sign of lusty courage. The red colour is thought to be the best cock; his legs short and strong, his thighs great and thick, and well covered with feathers, and his legs armed with long spurs, rough and pointed—straight in body, light, fierce, eager in battle, vigilant, ready, and often crowing, and not easily feared.”

Markham, in “*Cheap and Good Husbandrie*,” (p. 138) almost repeats the directions of Columella verbatim, and guarantees their correctness with the authority of his own opinion.

M. Parmentier recommends the cock to be chosen of a middling size, carrying the head high, having a quick, animated look, strong shrill voice, short bill, very red comb, large wattles, broad breast, strong wings, black or dull red plumage, thighs muscular, spurs strong, claws bent and sharp, free in his action, a frequent crower, and frequently scratching the ground in search of worms, not, however, for himself, but to treat the hens.

Not to weary my readers with an unnecessary citation of too many authorities, I may just observe, for their direction, that the cock should be in *perfect health*—feathers close and rather short, chest compact and firm—full in the girth—lofty and elastic gait—large and firm thigh—beak short, and thick at its insertion.

Next to health and strength, age is to be duly considered. Neither select a cock that is too old, nor one that is too young. Let the age be from a year and a half to three years and a half. Some cocks retain their vigour till they are even past six years old, and some make a display of unquestionable virility at the *premature age of five or six months*. It is far better, however,

for the fancier "to be sure than sorry." Do you secure a young and vigorous bird at the summit of his prime, leave experiments to others, steer equally clear of premature and often of deceptive developments, and of incipient age and decrepitude—avoid all extremes.

In your selection of hens—let them be of a medium size—of a robust constitution—*large head* (utility must be regarded before mere beauty)—bright eye—pendant comb—by all means reject such as have large combs, or such as crow. These are in a position similar to that of human females with mustachios, partaking too much of the nature of the opposite sex. They are the very reverse of good layers. An old saw runs—

"A hen that crows, a priest that dances, and a woman who speaks Latin, never come to a good end."

Mascall, following Columella and Stephanus, says—"The signs of a good hen are these—a tawny colour or a russet are accounted the chiefest colours; and next, those hens which have the pens of their wings blackish, not all black, but partly so. As for the grey and the white hens, they are nothing so profitable."

Markham tells us that we must lay even more stress on the selection of a hen than on the choice of a cock, and insists on "grey, grissel, speckt, or yellowish—black or brown is not amiss."

These directions may have been all very well in olden times ere the many new and valuable varieties of fowl now known were familiar to the poultry yard, but as far as colour is concerned, they can no longer be followed, unless with respect to the common Dunghill breed. Amongst these latter you may, of course, make what selection you please as to colour, but the more valuable and distinctly marked varieties have each its own hue, and you must consequently just take them as you get them. Perhaps the best mode of forming a conclusion as to the most profitable colour would be to keep a memorandum book, and to enter regularly the age, colour, and every other particular connected with your hens; and, of course, keep also a correct account of their proceeds, whether as to eggs or chickens. The average of a year's experience might lead to some satisfactory conclusion.

The *disposition* of the cock and hens should likewise become a subject of careful observation. Some cocks are of an unsocial, *unconjugal* disposition—will persecute and maltreat their hens, and will, if even they leave *them* alone, direct their domineering practices towards the younger inmates of the poultry yard.

*It is often necessary to change the cock, or replace one removed*

by death, and I must caution my readers to manage this with the utmost possible circumspection. Poultry, although naturally gregarious, are by no means indiscriminate in their attachments, and hens will not, in every instance, admit the company of a new husband when his predecessor has been removed. The celebrated French writer, M. Reaumur (the inventor of the thermometer) relates a very striking instance of the caprice hens occasionally exhibit. In one of his coops he kept two hens and one cock; the two hens, after having lived for a very long time on a perfectly affectionate footing with their companion, and after having laid eggs rendered reproductive by him, suddenly conceived for him an unconquerable aversion, and never ceased pecking him, until they stripped his head of feathers, and made it bleed, while the poor fellow bore their attacks most patiently, and not only never acted on the offensive, but scarcely even endeavoured to avoid their fury, until, at length, after a savage persecution for five or six days, they killed the poor creature outright. M. Reaumur substituted, in the room of the slain bird, a young, vigorous, and strikingly beautiful cock; but this experienced no greater mercy, and would also have been killed had he not been removed. Two other cocks, subsequently introduced, met with no better treatment. The hens appeared, in short, to have taken a vow of future celibacy; and no artifice could induce them to abandon their unnatural conduct.

It is also a very common thing for a cock to take a dislike to some individual hen—and this most frequently (not unlike some of his unfeathered biped masters) to such as are old; but this, however, is not invariably the cause. Mr. Dickson states that he had a cock once, which conceived so violent a dislike for a large Spanish hen, as to beat her unmercifully, drive her from her food, and almost starve her to death, although he had previously lived with her for several months a pattern of conjugal propriety and affection; and, strangely enough, the favourite hen of this cock was a small, unhealthy bird—the *oldest* in the yard!

Hens, as Parmentier quaintly enough observes, are, like other females, fond of a display of spirit on the part of the opposite sex. If, therefore, you have two or more cocks of equal apparent eligibility, and do not well know which you ought to constitute sultan of your yard, it is a good plan to let them do battle for the favour of the hens, and let the conqueror, of course, occupy the *desired post*.

“None but the brave deserve the fair.”

Sometimes you will suffer annoyance from the pugnacity of your cocks. This pugnacity is said to arise from an unusually amorous temperament, and a consequent jealousy of disposition. Mascall, or rather his original, Columella, recommends, as a cure for this—"To slake that heat of jealousie, ye shall slitte two pieces of thick leather, and put them on his legges, and those will hang over his feete, which will correct the vehement heat of jealousie within him" And M. Parmentier confirms this direction; adding, that "such a bit of leather will cause the most turbulent cock to become as quiet as a man who is bound hand and foot;" in other words—"tied neck and heels."

Although the cock can by no means boast much of the melody of his voice, he will on no account suffer himself to be *out-crowed* if he can help it; hence, you may observe a cock pause after each crow, in order to ascertain if he be answered by a rival, and the succeeding vocal attempt will, if possible, be yet louder and more discordant.

Cocks and hens are both fond of cleanliness and order in their *plumage*; and are, especially the former, constantly pecking and pruning their feathers. It was formerly, but erroneously, supposed, that during this process an oily fluid, secreted in the gland near the tail, was extracted from its receptacle by the pressure of the beak, and then disseminated over the remainder of the plumage, as a process necessary to render the feathers waterproof. In order to dissipate this illusion, I need only observe, that the *tail-less* fowl, though they are destitute of that part of the body where this gland is said to be situated, and have, consequently, no oil to extract, go through precisely the same process of pecking and pruning, and their feathers are just as much waterproofed as those of any other fowl. In my opinion, this fondness of pecking and pruning is partly a provision of nature, designed to relieve some irritation in the skin, and thus conduce to health, and partly proceeds from a pure love of cleanliness and regularity in the plumage, inherent in all varieties of fowl.

In the choice of a hen for setting,\* look for a large bird, with

\* Hens had better not be allowed to sit during the months of June and July, for if they are permitted to do so, the young will be hatched at the very season when the *harvest-fly* prevails—an insect so troublesome in some counties of England as to be regarded in the light of an absolute plague. This insect attacking the chickens' tender skins frequently occasions fever, which terminates fatally. I have met with instances, in Buckinghamshire, where this fly attacked the *heads* of children, producing much discomfort, nay, painful annoyance. It was there, in my time, known as the "harvest bug."

large, wide-spreading wings. Though *large*, however, she must not be heavy, nor *leggy*. No one of any judgment would set a Malay; as, in such case, not only would many eggs remain uncovered, but many also would be trampled upon and broken. Elderly hens will be found more willing to sit than young and giddy pullets; indeed, the latter should never be allowed to sit until, at least, the second year of their laying.

The Spanish fowl are not generally good sitters; but they are better, being excellent layers. The Dorking reverse the order, being better sitters than layers; and these qualities will also be found to extend pretty generally to hens partaking of the prevailing colours of these two varieties; the black being usually the best layers, and but careless or indifferent sitters, while grey or checquered hens (especially such as have light-coloured legs) are the best you can procure.

You will be informed of a hen's anxiety to sit, by a peculiar change in her voice to a distinctive *cluck*, which continues even after hatching, until the chickens no longer require her maternal care. The heat of the hen's body is also materially increased; hence, when it is desired to check a hen's anxiety to sit, the common practice for allaying this heat is immersion in cold water.

If you entertain doubts of the steadiness of the hen you desire to set, try her constancy by placing her for a few days on some pieces of chalk shaped so as to resemble eggs.

If you desire to have chickens produced at some particular time, when you have no hen ready to sit, you may induce the desire of incubation by stimulating food—such as toast, or dry bread steeped in good ale, well-boiled oatmeal porridge, with a little Cayenne pepper mixed through it, or hard-boiled eggs, and fresh raw meat cut small. Fomenting the belly with pepper steeped in vinegar, is a good practice. But do not suffer any one to persuade you to pluck off the feathers, or to use nettles—practices more cruel than efficacious. Artificial warmth is also never to be lost sight of.

After a few days' treatment such as I have described, placing the hen upon the eggs in a dark place, or setting her in a tub, and covering her up with a cloth, will generally be found sufficient. M. Bosc, however (*Encyclopedie Methodique*, art. POULE), describes a sort of hatching-box, invented by a lady, named Mlle. de Portebois. This was a small box, so narrow that the hen could not turn in it; and when placed in it, to her tail was tied a piece of wood, which, in five or six days, was removed.

M. Bosc says, that, by this contrivance, Mdlle. de Portebois used to make a hen sit several times in succession; the chickens, as soon as hatched, being removed to other mothers for the necessary nursing.

If you find a hen soon tire, or become impatient of sitting, only give her about half the usual quantity of food, and then, when she returns to the nest, feed her from the hand with such dainties as you have found to be her favourites. Some will recommend the food to be placed within the hen's reach, in order that hunger, at all events, may not be a means of inducing her to leave her important post. This is bad. It is not hunger that induces the impatience to which I have alluded; and this total deprivation of exercise is most prejudicial to the poor bird's health.

Some hen's on the other hand, are as obstinately constant in their sitting, as those I have been describing are the reverse; and birds possessing this temperament, will frequently sit until they half starve themselves, if not prevented. Mr. Lawrence says, that he has had hens which, under these circumstances, reduced themselves to such a pitch of weakness as even to *faint*; and, after the chickens were hatched, to be so weak as to be scarcely able to attend to them.

Markham scouts the idea of any hen sitting too long. But he is in error. I would not, as some do, recommend such a hen to be fed upon her nest; but I would remove her at proper intervals, and coax her to eat by presenting her with delicacies. If she consent to eat a sufficiency, drinking will be sure to follow. I may here observe, that if a hen acquire the evil habit of breaking and eating her eggs, boil an egg hard, break away a little of the shell, and give it to her while hot. If she peck at it, and, of course, burn herself, you may reckon upon having cured her of her vicious propensity; but, should the first painful lesson prove ineffectual, try a second. You will seldom or never have to resort to a third. I think that experience justifies me in arriving at the conclusion that this habit originated in a craving for *calcareous* matter, which I have already stated to be necessary to the well-being of fowl. If your hens be supplied with chalk and sand your eggs will not be touched.

## CHAPTER VI.

## SELECTION OF EGGS FOR SETTING—THEIR MANAGEMENT DURING INCUBATION—AND TREATMENT OF THE CHICK AFTER HATCHING.

IN selecting eggs for setting, bear in mind what I have said as to the number of hens that the cock should associate with ; and choose such eggs as you have reason to know, or believe, to have been rendered reproductive. Choose the largest. Sketchley tells us that he has always found the round egg to contain the female chick, and that of oblong shape, the male. This, however, though it may have been newly discovered by Sketchley, was known to Columella and Stephanus. If you examine the egg between your eye and a candle, you will be able to discern the position of the vacancy caused by the little air bag, at the blunt end of the shell. If this be in the centre, the egg will produce a cock ; if at one side, a hen. You may form a very fair judgment of your eggs from their specific gravity. Put them into a bowl of tepid water, and reject such as do not sink to the bottom. Choose, also, such as present a marked disparity of size between the two ends. Such as are equal in size at both ends, usually contain two yolks ; and these, be it observed, instead of producing twin chickens, as might naturally be expected, commonly produce monstrosities. Reject them. The number of eggs to be placed under a hen is from nine to eleven. Be sure that they all have been laid about the same time, and that they are all fresh ; and carefully note down the day on which you place them beneath the hen. Never turn the eggs. The hen can do that better than you. About the twelfth day of incubation, you may be enabled to reject such eggs as are unfruitful. For this purpose, hold the egg between your hands in the sunshine : if the shadow which it forms waver, keep the egg, as the wavering of the shadow is occasioned by the motion of the chick within ; if it remain stationary, throw it away. If your eggs have been very fresh laid, the chick will be developed earlier than otherwise ; if they have been fresh, you will, about the sixteenth day, if you apply your ear to the egg, hear a *gentle piping noise* within ; if the eggs have *been stale*, this will not be perceptible until about the eighteenth day ; and, at this time, the yolk which had previously lain outside,

and around the chicken, will now be gradually entering into the body of the bird. This serves as nourishment to the little prisoner until his subsequent efforts shall have set him free. From this period let your attention be assiduous; but, at the same time, *cautious*, for the hen has heard this cry before you have, and all her maternal anxieties and tendernesses are, from that moment, greatly augmented, and any unnecessary interference will only tend to irritate her.

The position which the chick holds within the egg, is apparently anything but advantageous for the work of breaking forth; and, hence, if the youngling be weakly, artificial aid is often necessary. This position would, indeed, almost induce one to regard the liberation of the chick, by his own unassisted efforts, as an impossibility. I shall describe it briefly:—The neck slopes towards the belly, to about the centre of which comes the head; the head lies beneath the right wing, just as that of a sleeping bird; the feet are gathered up like those of a fowl ready trussed for the spit, and the claws bend backwards, till they almost touch the head; and it is in this confined position that the shelly wall of the prison has to be broken through. It must, therefore, be anything but easy work for the little chick. The process of effecting the breaking of the shell, is a succession of taps from the beak, by which first a crack or *star*, with many cracks diverging from it, takes place: a hole is soon effected, the sides gradually chip away, and the chicken emerges to its new sphere of being. Sometimes the little bird, on proceeding to leave the broken shell, unexpectedly finds itself retained in its place by some accidental, or irregular circumstance. The shell may, for instance, have been well cracked; and yet, the lining membrane of the interior of the shell may be so tough as to defy all the efforts of the inmate to rupture it, and thus, still present a barrier, and often, without assistance, an insurmountable one. Some chickens *waste their time* striving to tear this membrane before they have made a sufficient crack in the shell. These had better not receive assistance; they will speedily find out their error, and go to work in a proper manner.

In every case *look through the egg* before helping the chick. That chicken which comes out before the *whole of the yolk* has been absorbed, will assuredly prove to be an unhealthy, weakly, little wretch, and will speedily die. A chicken must, previous to leaving the shell, have imbibed such a portion of nutriment as will, *at least*, serve him for four-and-twenty hours afterwards. 11

is for this that the yolk is designed. Any unusual excess of light, or any injudicious interference with the eggs towards the close of incubation, will nearly always result in causing the chicken to strive to get out too soon, and thus often occasion the loss of numbers.

Neither are all shells, nor all membranes, of an equal thickness, and some are even preternaturally obstinate; hence another difficulty the chick has to experience.

Some women will dip the eggs into warm water the day before they think they will be pecked at. M. Reaumur says that this produces no perceptible difference in the consistence of the shell; and I object to the practice, not only on the score of its total inutility, but, as likely to injure the present or future health of the chick; and the warmth is likewise specially calculated to produce another difficulty connected with its egress, viz., that of being *glued* to the shell—the white of egg, the *albumen*, which surrounds the chicken in the shell, being convertible by heat into perfect GLUE.

The following is, perhaps, the only case in which interference can prove useful:—When you find the fracture on the outside of the shell remaining the same for five or six hours, and when, on examining the edges of this fracture, you find them dry and unmoistened by any fluid, you may conclude that assistance is called for, and may proceed to render it; but, of course, with all possible caution. The best mode to be adopted on such occasions is, to imitate, as nearly as possible, the natural efforts of the chicken itself, which may be done by sharp, short strokes with the back of a knife or a key; or, what is better than either, the point of a pair of scissors. Be, however, both gentle and deliberate, and take care lest you penetrate the cavity of the egg. Having succeeded in making a sufficient opening in the shell, you may, by a careful and tender use of your fingers, extricate the chick. Sometimes a few scales of albumen, or of the lining membrane of the egg, may remain on the bird's plumage for some days. Do not be uneasy about them. Leave them alone, and as they dry they will fall off of themselves. Mind, and in affording your assistance to the embarrassed chick, be extremely tender with your fingers. You may otherwise often kill, when your intention is only to cure. For my own part, my confidence in the unassisted powers of nature is such, that I would be disposed to permit even *twelve hours* to elapse before I resorted to mechanical means of interference. A chick, so weak as to perish before that

time, is not worth striving to extricate; and even, on the score of humanity, its death within the shell would be less painful than after quitting it.

For about twenty-four hours after birth, the chick not only can do well enough without any extraneous nourishment, but will positively be far more likely subsequently to thrive if let alone, than if crammed or incited to eat prematurely. It is, however, no harm to turn your new clutch in among older chicks that already feed themselves. They will then ordinarily follow the example of the rest, and pick away at whatever is going. This is, I should say, a matter of perfect indifference. Nature is too good a preceptor to allow the little brood to fill themselves to repletion.

Some will recommend, as food for young chickens, yolks of eggs boiled hard, and broken down with crumbs of bread. This treatment is, however, needlessly expensive; and I have found plain crumbs, or cold oatmeal porridge, that has been very well boiled, and not *burned*, do just as well. Do not forget that, in all probability, thirst will be present before hunger; and there ought, therefore, always to be a flat, shallow pan or plate of clean spring water left within reach, and the hen herself, glad of a little refreshment after so long a task, will usually lead the way to it.

After a day or two your chickens will eat anything: but if they are of a delicate and valuable sort, chopped bits of fresh meat are an excellent nourishment, or instead thereof, chopped *earthworms* will be found to answer equally well, and they are decidedly not only cheaper but far more easily procured.

If the chickens be hatched during cold weather they will require artificial warmth, or at the very least comfortable housing. The kitchen of a farm house will afford this in perfection; but there is no occasion to follow the extra caution of Mr. Dickson, who is particular in recommending "*confinement for five or six days in baskets lined with tow!*"—freedom from annoyance, comfortable housing, and a sheltered walk are all that they require; an hour's sunshine is worth more than a year's wrapping up in tow. If your chicks be *very* weakly you may cram them with crumbs of good white bread steeped in milk; but at the same time recollect that their little crops are not capable of holding more than the bulk of a pea—so rather *under* than *over* feed. If your hen have been much exhausted by hatching, you will do well to cram her with crumbs of bread steeped in Port wine, or in the absence of wine, diluted spirits or ginger cordial may be used with effect.

If you wish to fatten your chickens for the table you will find boiled potatoes *steamed*, and given moderately *warm*, a most nutritious diet, which may be greatly improved by mixing with the mess a small portion of boiled oatmeal; beware, however, of giving any food to your fowl in a *hot* state. Many of our cattle-feeders who keep poultry are apt to make great mistakes in this respect. Being in the habit of boiling or steaming potatoes for the cattle, they throw some of them in a hot state to the fowl on their way to the cow-house, and the birds eating this hot food become affected with many troublesome and fatal disorders, amongst which *roup* is by no means the least to be dreaded.\* A small portion of Cayenne pepper mixed with the food will be found highly conducive to health, and consequently to condition; but do not season according to your own palate—as much as will barely impart the flavour to the mess will be found to suffice.

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## CHAPTER VII.

### THE TURKEY.

#### THE WILD ORIGINAL.

LINNÆUS and others have given the turkey the erroneous appellation of "*Meleagris Gallipavo*," under the strange impression that this bird and the *Meleagris* of the ancients are identical—a very strange error indeed, inasmuch as the descriptions of the *Meleagris*, given by Athenæus, and other classic writers, refer, with the most minute accuracy, to the *Guinea fowl* or *Pintado*, and in scarcely any single particular can be traced a resemblance to the turkey; the mistake was first observed and pointed out by the French Academicians, and it is now universally admitted.

Various opinions have been promulgated relative to the original country of the turkey, but it is now ascertained, beyond a doubt, to have been America; and it is in that country alone that the true original of our domestic turkey is yet to be met with in all its primitive wildness, clothed in its natural plumage, feral in all its habits, the unreclaimed denizen of the wilderness. As to the medium through which this bird was first introduced into Europe much doubt still exists, and we have, indeed, no authentic proof

\* During the present failure of the potato crop, other roots, such as mangold, turnips, &c., may be used, but with the same precaution, viz., not to be given too warm.

either at what period of time, or by what agency that event took place; it is, however, not unreasonable to suppose that the Spaniards, after their discovery of Mexico, where the turkey is known to be indigenous, brought specimens away with them on their return to their own country; and Oviedo, the earliest describer of this bird, speaks of it as having been domesticated by the Christian inhabitants of New Spain and the Spanish Main. This proves that the turkey was domesticated by the Spaniards before the year 1526, for in that year was Oviedo's "*Natural History of the Indies*," published at Toledo. The discovery of Mexico took place in 1518: and when Hernandez shortly afterwards described the natural productions of that country, he enumerated amongst them the turkey, distinguishing also the *wild* from the *tame*. In 1530, the turkey was introduced into England; but it seems more probable that we owe its introduction to Cabot's having brought it direct from America, than that we obtained it from Spain; for if the latter were the case, I think it likely that some record of its transmission would remain. In Baker's Chronicle we are told that—

"Turkeys, carps, hoppers, piccarel, and beer,  
Came into England all in one year."

In 1541, we find turkeys enumerated amongst the delicacies of the table, and classed with the crane and swan; but the bird was too important an addition to our stock of domestic poultry to remain very long a rarity. Attention was drawn towards it—it was bred extensively; and in 1573, we find it mentioned by Tusser, in his "*Five Hundred Points of Good Husbandry*," as forming the staple of the farmer's ordinary Christmas dinner.

The origin of the popular name "*Turkey*" appears to be the confusion that at first so unaccountably subsisted relative to the identity of the bird with the Guinea fowl, which is really a native of that country, and which was introduced into England from the Levant, and at the time of the introduction of the turkey was still scarce. Some say it arose from the proud and *Turkish* strut of the cock. An old writer on agriculture, named Googe (A.D. 1641) asserts that the turkeys and Guinea fowl were unknown in Britain in 1530, but he evidently suffered himself to be misled by a German author, Heresbach, whose treatise seems to have been the basis of Googe's work.\* Hakluyt (A.D. 1582) mentions their

\* This habit of blindly following the writings of their predecessors has too often been the great rock on which naturalists have wrecked themselves. It is the base of all science.

having been introduced "about fifty years back." In 1555, two turkeys and four turkey poults formed part of the inauguration dinner of the sergeants-at-law in London; they cost only four shillings each, while the swans were rated at ten shillings, and capons at half a crown. Turkeys could not, therefore, have been very scarce at that time (Dugdale, Orig. Jud.) The turkey, therefore, would appear to have been introduced into England about the year 1530, and we may conclude that it was brought into France about the same period; for, in Champier's Treatise on Diet (*De Re Cibaria*) published in 1560, the turkey is described, and this work is said to have been written upwards of thirty years antecedent to its publication. In this book also the bird is said to have been brought from the "newly discovered Indian islands;" and my readers are well aware that the newly discovered Continent of America was at first conjectured to be a portion of India, or an island belonging to it (and hence the aborigines of America have since been incorrectly styled Indians). In 1556, twelve turkeys formed the present offered to the King of France, by the burgesses of Amiens. Heresbach states that they were introduced into Germany about 1530, and we are informed by Zanonie, that a sumptuary law made at Venice, in 1557, indicates the rank of those at whose tables they were permitted to be eaten. The turkey was then early appreciated, and his value duly estimated; yet, strange to say, not a record remains to lead us to a knowledge of the person to whom the natives of Europe are indebted for so very important a benefit. The turkey has long enjoyed the reputation it now holds, and has been deemed worthy of a place at the most luxurious festivals; nor will any of my readers I am sure, deny the excellence of a young, fat, and tender turkey, garnished with good celery sauce, and accompanied by a ham, or a cut of bacon, by way of a relish.

No one who has seen only the domesticated inhabitant of the poultry yard, can form any idea of the surpassing beauty of its wild original. The cock measures about three feet and a-half, or nearly four feet in length, and almost six in expanse of the wings. The skin of the head is of a bluish colour, as is also the upper part of the neck, and is marked with numerous reddish warty elevations, with a few black hairs scattered here and there. On the under part of the neck the skin hangs down loosely, and forms a sort of wattle; and, from the point where the bill commences, and the forehead terminates, arises a fleshy protuberance, with a small tuft of hair at the extremity, which becomes greatly

elongated when the bird is excited ; and at the lower part of the neck is a tuft of black hair, eight or nine inches in length.

The feathers are, at the base, of a light dusky tinge, succeeded by a brilliant metallic band, which changes, according to the point whence the light falls upon it, to bronze, copper colour, violet, or purple ; and the tip is formed by a narrow black velvety band. This last marking is absent from the neck and breast. The colour of the tail is brown, mottled with black, and crossed with numerous lines of the latter colour : near the tip is a broad black band ; then a short mottled portion ; and then a broad band of dingy yellow. The wings are white, banded closely with black, and shaded with brownish yellow, which deepens in tint towards the back. The head is very small in proportion to the size of the body ; the legs and feet are strongly made, and furnished with blunt spurs about an inch long, and of a dusky reddish colour ; the bill is reddish, and horn coloured at the tip.

The hen turkey is less in size than the cock ; her legs are destitute of spurs ; her neck and head are less naked, being furnished with short, dirty, grey feathers : the feathers on the back of the neck have brownish tips, producing, on that part, a brown longitudinal band. She also frequently, but not invariably, wants the tuft of feathers on the breast. Her prevailing colour is a dusky grey, each feather having a metallic band, less brilliant than that of the cock ; then a blackish band, and a greyish fringe. Her whole colour is, as usual among birds, duller than the cock ; the wing feathers display less white, and have no bands : the tail is similarly coloured to that of the cock. When young, the sexes are so much alike in appearance, that it is not easy to discern the difference between them ; and the cock acquires his beauty only by degrees, his plumage not arriving at perfection until the fourth or fifth year.

The wild turkey was formerly found in Canada, and in several districts of the United States, but has been gradually driven backwards as population increased. It is now chiefly to be found in the wilder regions of Kentucky, Ohio, Illinois, and Indiana.

Audubon, the celebrated ornithologist, and a most delightful writer, describes the habits of these birds most fully ; and I shall follow him in my description. The wild turkey is, to a certain extent, migratory in its habits ; and about the latter end of autumn, large flocks assemble, and gradually desert their barren wilds, for the richer plains of Ohio and Mississippi. The cocks associate in parties by themselves, and seek for food apart from

the hens. The latter remain with the poults, which they take care to keep away from the cocks, who are very apt to attack and destroy them.

Flocks leaving the same district, all move forwards in the same direction. They very seldom take wing unless to escape an enemy, or to cross a river, which latter feat they do not perform without great deliberation, and a great deal of noisy "gobbling," as if it were no easy matter to screw up their courage to the necessary pitch. The old and strong birds will fly in safety across a river upwards of a mile in breadth; the young and weakly often fall in, unequal to the effort; but, nevertheless, usually manage (in an awkward manner certainly) to attain the shore by swimming. On reaching the opposite bank, the flock will generally strut about for a length of time, as if bewildered, and may during this interval be readily taken. On arriving at the desired district, they disperse in smaller flocks, composed indiscriminately of cocks, hens, and poults. Their food consists of beech-mast, maize, a fruit called the Peccan nut, and acorns. They will also devour such beetles, grasshoppers, young frogs, small lizards, &c., as fall in their way. This is about November; and at this season they often incautiously venture too near farm-yards and barns, where great numbers are killed, and form a valuable article of traffic to the fortunate settler.

Early in March the hens separate again from the herd, roost apart, and carefully shun the cock. They still, however, remain near the latter; and when a hen utters her *call*, every cock within hearing responds with his "gobble," "gobble," "gobble." This noisy wooing usually continues for about an hour before sunrise, after which the birds silently alight from their perches, and the cocks strut about, with expanded tails, seeking to obtain the favour of their desired mates. They sometimes, while thus employed, encounter each other; in which case desperate conflicts take place, terminated only by the death or flight of the vanquished.

After pairing, the birds remain together for the season until laying begins, when the hen is again compelled to seclude herself, as the cock would otherwise destroy the eggs. About the middle of April the hen forms her nest of a few dry leaves, on the ground, in some sheltered spot, where it will be concealed from every hostile eye; here she deposits her eggs, to the number of *from ten to twenty*; they resemble, in size and colour, those of *the domestic bird*. Whenever she leaves the nest, she covers it

up with leaves, so as to secure it from observation. She is a very close sitter, and will also, when she has chosen a spot, seldom leave it on account of its being discovered by a human intruder. Should she find one of her eggs, however, sucked by a snake, or other enemy, she abandons the nest for ever. Several hens will sometimes join, lay in the one nest, sit alternately, and rear their broods together. When the eggs are near hatching, the hen will not forsake her nest while life remains.

The young are very sensible of the effects of damp; hence, after a rainy season, wild turkeys are always scarce. The flesh of the wild turkey is very superior to that of the domestic bird; yet, that of such of the latter as have been suffered to roam at large in the woods and open plains is, in no respect, improved by this partially wild mode of life. The wild bird is frequently domesticated in America; but I understand that these individuals are not very steady, and will on the first opportunity return to their native haunts. C. Lucien Bonaparte, to whose labours in the interesting field of American ornithology I have also to acknowledge myself indebted for some of the foregoing details, relates that a gentleman in West Chester county, New York, once procured a young female wild turkey, in order to try the experiment of crossing the breed with the domestic bird; but, owing to some accident, it did not succeed; and in the ensuing spring the hen disappeared. She returned, however, in the autumn, followed by a large brood, and remained in the farm till the following spring, when she again disappeared, but returned in autumn with a second brood; and this she continued to do for several years.

When the eggs of the wild turkey are hatched under a tame hen, the poults preserve the wild manners of their race, and roost apart from the rest. These are often used as decoy birds, for the purpose of securing the wild ones. The wild turkey is found to thrive better, and fatten sooner, on a given quantity of food than the tame; and it is well known that the cross between the two is a greatly improved breed as to flesh and capability of taking fat: it is, therefore, to be wished, now that our communication with America is so rapid, that some of my readers' friends who have emigrated would send them a few hens, that the experiment might be fully tried. Some writers have greatly exaggerated the *weight* of the wild turkey; and some have even asserted that they have met with individuals of *sixty pounds* weight. M. Bonaparte states the average weight of the hen to be from eight to nine pounds, and

that of the cock from fifteen to twenty. A knowledge of the natural habits of the bird is of the greatest importance in guiding us as to its treatment in a state of domestication ; and we, accordingly, should avoid condemning to the confinement of close, and often filthy hen houses, a bird which, in a state of nature, always perches in the open air. *Open sheds* and *high perches* are what they require ; and their dislike to the mode of housing I speak of may be recognized in the eagerness with which they rush out the instant the door is opened in the morning. The domestic turkey has been known to go wild in England (*Sp. Mag.*, Aug. 1824), and remain so for two or more years ; and there is no doubt that it would be possible to naturalise them amongst us like the pheasant.

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## CHAPTER VIII.

### THE DOMESTIC TURKEY.

DOMESTICATION has in the case of the turkey, as in that of most reclaimed animals, produced a diversity of colour, which by cultivation, whether owing to fancy or some supposed inherent excellence residing in the various tints, has now furnished us with several so-called varieties or breeds ; still, however, with one exception (the Norfolk), only differing in the prevailing hue of their plumage : thus we have the black, the white, the copper-colour, the brown, the bronze, the dusky-grey, &c.—they are, however, of course, all the descendants of their great American original, of which I am disposed to think but one really exists,\* although F. Cuvier has described (1820) a second species found at Honduras. There is a question whether this actually be a second and distinct species, however, or merely a *variety* of the wild bird, owing its diversity of aspect to circumstances dependant on locality, and consequent change of habit, combined with difference of climate and other important causes, which we know in the case of other animals produce such remarkable effects.

As to the relative value of the ordinary varieties, it would be almost difficult to offer an opinion ; but those who suppose the

\* I have since been confirmed in this opinion.



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*white* turkey to be "the most robust and most easily fattened," are decidedly mistaken, both in theory, as far as analogy may guide us, and in practice, where the certain test of experience has shown to the contrary. The bronze and copper-coloured varieties are generally *undersized*, and are amongst the most difficult of all to rear; but their flesh is certainly very delicate, and perhaps more so than that of other kinds—a circumstance, however, that may partly result from their far greater delicacy of constitution, and the consequent *extra trouble* devoted to their management.

The brown and ashy-grey are not particularly remarkable, but the black are decidedly superior in every respect not only as regards greater hardiness, and a consequent greater facility of rearing, but as acquiring flesh more readily, and that being of the very best and primest quality. Those of this colour appear to be less far removed than the others from the original wild stock. Fortunately, too, the black seems to be the favourite colour of nature, and black turkeys are produced far more abundantly than those of any other hue. M. Parmentier was informed by a French lady, who had devoted much of her attention to rural affairs, that she had in her yard ten black turkey hens and a *white* cock,

and yet that not one of the chicks was white, or even light coloured. Turkeys will sometimes change their hue. Mowbray states that "a turkey cock, the property of J. Lee, Esq., of Redbrook, near Whitechurch, which was black in the year 1821, became afterwards *perfectly white*; this extraordinary change taking place so gradually, that, in the middle of the moulting, the bird was beautifully mottled, the feathers being black and white alternately."

Of all the domestic varieties of turkey, the Norfolk is the most esteemed. This bird was originally produced by a cross with the wild American breed; and it is chiefly on account of the unqualified success which attended the experiment in that instance that I would recommend our emigrated friends to afford us an opportunity of trying a similar experiment for ourselves, our Irish turkeys being universally admitted to be second in quality or bulk only to the celebrated Norfolk half-blood.

With respect to the best mode of keeping turkeys, I have merely to repeat what I have already remarked relative to a due attention to the habits of the original wild breed in its native state. Let them have a large roomy open shed, sufficiently protected of course from the weather, and, above all, from *moisture*. Let the perches be *high*—and here, again, you will do well not to omit the use of the *hen-ladder*; for although these birds can usually fly well, still, when *fat*, they become too heavy for their wings, and are apt to injure themselves in their descent from a lofty perch, especially when in confinement; when at full liberty they can take better care of themselves. During warm weather they may be permitted to select their own roosting places on the trees about a farm; but should be well watched, lest they stray away; and this indulgence should on no account be granted them if *frost* be anticipated, as their toes are tender, and apt to become *frost-bitten*. Indeed, summer is the only time of the year when this out-roosting may with safety be permitted.

The turkey is a most profitable bird to the peasant, for it can almost wholly provide for itself about the roads and hedge-rows; snails, slugs, and worms are among the number of its dainties, and the nearest stream serves to slake its thirst. To the farmer, however, it is often a perfect nuisance from its love of grain, and should, therefore, be kept in the yard until all corn is too strong in the root to present any temptations.

Notwithstanding the separation, which, with the exception of *certain seasons*, subsists in a wild state between the cock and hen

urkey, they have been brought to feed and live amicably together in a state of domesticity. The former, however, retains sufficient of his hereditary propensities to give an occasional sly blow to a chick, or forward poult, but that very seldom of a seriously malicious character.

Mascall, in describing a turkey-cock (such as the breeder would select) says, that he should be "a bird large, stout, round, and majestic; for when he walketh dejected, he is never good." (Cheap Husband. p. 151.)

M. Parmentier says, that both cock and hen should have short legs, full shapes, and general vivacity and energy in all their movements; likewise, that they should be both well-shaped, and in healthy condition.

Mascall says, that the cock should not be "passing a year or two years old. Three years is the most, and too much," &c.

For my own part, I hold a turkey-cock, at the age of three years, to be only in his prime, and to continue, in every respect, fitable to your purpose until five. The hen is at her prime younger, and, probably, at the second year is as good as ever she will be afterwards.

It has been stated by some, and yet, as positively denied by others, that one fecundation will render all the eggs of that laying fertile. Without entering into a discussion upon the subject, I may merely remark, that Mr. Nolan is of opinion that such is the case; and as he has had the advantage of many years' experience, I should be sorry to differ from him; still, however, were it my own case, I should prefer making "assurance doubly sure," and allowing one cock to every dozen or fourteen hens. Even so, however, will render it unnecessary for every poor man who may desire to breed turkeys, to have a cock, as one cock will thus prove amply sufficient for the hens of a whole townland. This should encourage kind landlords to keep a good turkey-cock of a valuable breed, and so afford their humbler tenantry an opportunity of improving upon the commoner varieties they may possess.

The approach of the laying season is easily known by the increased liveliness and proud strut of the hen; and she, likewise, further expresses her feelings, by a peculiar self-satisfied air, that soon becomes familiar to the observer. This usually takes place in the month of March (nearly a month earlier than the wild bird). When the breeder perceives those symptoms, he should provide a nest, and put an egg, or a bit of chalk formed

like one, into it, to induce the hen to commence laying there. Partaking of the retiring propensities of the wild hen (although she has not equal reason to dread the destructive passions of the cock), the female turkey is a secret layer, and does her best to elude the vigilance of her keeper, and steal away to some secluded spot. The peculiar note of which I have spoken, betrays, however, the fact; and whoever has the care of the fowl, should follow her to her retirement, and bring her back to the nest prepared for her.

The time when the hen turkey lays is usually morning. Some lay daily; others, only every second day. The number of eggs laid, is commonly from fifteen to twenty; but this varies with the age of the bird—a hen of mature age laying more, and larger eggs, than one of a year old. When the turkeys are to be let out in the morning, you may examine the hens, and keep in such as are about to lay. This precaution will, of course, prevent the loss of a single egg. While the hen is laying, the cock should be kept from her, as he would ill-treat her, and break the eggs. The eggs should be taken away as soon as laid, lest they might be broken through the awkwardness of the hen, or sucked by vermin. They will keep till the hens are done laying, if put in a basket and hung up in a dry place. It is unnecessary to keep the eggs belonging to each hen in a separate place. The turkey is not troubled with any very exclusive feelings, or, rather, her disposition overflows with an excess of maternal love; for she will rear a clutch belonging to another quite as carefully as if they were her own; and will, also, if required, hatch the eggs of ducks, geese, or common fowl. In the second laying the eggs are fewer in number, seldom exceeding from ten to thirteen; and, on this occasion, extra care is requisite.

A writer in the "Sporting Magazine" for August, 1824, thus expresses himself:—"The sooner that one hen is turned away from her brood, and the brood mixed up with that of another, hatched about the same time, the better chance there is of rearing it, as the hen, which is so turned away, will lay again in a fortnight or three weeks, and thus hatch a second time before the month of July is out. Even under these circumstances the chance of rearing the young ones is very uncertain, as they are hardly strong enough to meet the cold nights in the autumn, when they *often become what is called club-footed*, and die. I rather recommend letting the hen lay as many eggs as she will, and turning her off when she becomes broody. Hens, thus treated, will lay

again in the month of August, so that under all circumstances, they may be called profitable birds."

Mascall is similarly averse to late hatching. He writes—"Those hennse that laye their eggs later, laye and sitte, bring up their chickens about mid August, or after, which chickens are so tender in winter following, they will hardly prosper, for they may abide no colde."

The turkey-hen is a most persevering sitter; and when her eggs are taken away, she would sit upon stones, if she could not procure the eggs of another bird, and would perish before quitting the nest. Eggs should, therefore, be left with her, not only to tranquillize her, but because sitting upon eggs fatigues her less than sitting upon an empty nest; but these eggs must be marked in order to distinguish them from those the poor bird continues to lay; for any eggs that seem to her to be slow of hatching, will be abandoned, as she will quit the nest as soon as she perceives the chick; consequently, as soon as the eggs you placed under her were hatched, she would leave the nest, and the eggs of her own laying would be sacrificed. Remove, therefore, the former; and it is for this reason that I recommend them to be marked. Keep the nest clean while the turkey-hen is sitting, as dirt will injure the eggs. No one should go near a hen when sitting, except her keeper; and no one should turn the eggs, or meddle with them further than I have already indicated. The bird will turn her eggs with more judgment than you can.

M. Parmentier relates that he successfully employed the turkey-cock as a sitter, and found that he acquitted himself to admiration up to the period of hatching. "When the young chicks appear, their cries and motions scare him, and he either kills or abandons them."

On the thirty-first day of sitting, the chicks leave the eggs; but as some quit their prison before others, they must be placed in a basket filled with feathers, and if the weather be cold, placed in some warm spot. When all are out, they may be given to the hen. Sometimes the chick will require assistance in leaving the egg; and if so, the same caution must be observed that I have insisted upon in the case of the common fowl. Be very sparing of your aid, or you may do far more harm than good.

Many writers recommend a vast deal of quackery in the treatment of the young chicks. Some go the length of ordering them *wine, pepper, bathing in cold water!* &c. It is far better to let them alone. For a few hours after hatching, the chicks require

no food at all; and then, instead of *cramming* them—a process in which you are extremely likely to break the tender beak of the little chick—chop up a few hard eggs with boiled nettles, parsley, and a little bread or curd; make this into a paste, and present it to the birds in the palm of your hand, or place it before them on a stone, taking care that the hen does not rob them. In supplying them with water, be careful to put it in such very shallow vessels that they cannot wet themselves; for the least moisture appears fatal to them. As the turkey-chick does not seek its food immediately on leaving the egg, and as the hen seems incapable of instructing her little offspring how to do so, it is a practice with some to put a few common hen's eggs among the turkey's (which must be done about nine or ten days after sitting), that these, coming out with the little turkeys, may, by force of example, teach them to provide for themselves.

Unless in very warm weather the hen and chicks should be housed for a month. If they appear drooping, put powdered caraway seed, and a little Cayenne pepper into the food. If you mix the food with milk, let it be previously boiled. Unboiled milk will purge the chicks; but, for my own part, I prefer pure water.

At the age of about two months occurs the most critical period in the life of a turkey, called "*shooting the red*;" or the time when the head and neck acquire the reddish colour of the adult. This crisis once past, the birds may be regarded as past danger, and exchange the name of *chicks* for that of *turkey poults*. The only treatment necessary when the bird is shooting the red is *nutritive food*, and the addition of a small pinch of Cayenne pepper. Bruised hemp-seed is also found serviceable.

I know of no birds so profitable to the breeder, especially to the peasant, as turkeys. They will almost wholly provide themselves with food; and it is only the young chicks that require nourishment at our hands; and how inexpensive also is this nourishment? The nettles that grow in our ditches form its staple; and a few halfpenny worth of pepper will serve for many clutches. With care you may rear two clutches, or broods, in a year; and have from eight to fifteen survivors in each. Take the average at *ten*, and supposing you have three hens, you may bring up *thirty chicks*. These will certainly not cost you quite a half-penny per week each, for the first two months; but allow one *shilling* (which is over the mark) per week for the lot: that, in the two months, will amount to eight shillings; and at this age

you may, if you desire to part with them, obtain, at least, from one shilling to one shilling and sixpence each for them. Call it the former, and you have thirty shillings in two months, in return for a gradual outlay of eight shillings. 'This will take place twice in the year. Your hens will cost you nothing for keep; and you must admit that your profit is handsome. This is, however, far below the mark. There is nothing to prevent an individual having *more hens*, rearing larger clutches, and disposing of them at nearly double this price.

The well-known William Cobbett, who, with all his failings, was a shrewd and accurate observer, thus writes:—"To raise turkeys in this chilly climate, is a matter of much greater difficulty than in the climates that give great warmth; and so true is this, that in America, where there is always a 'wet spell' in April, the farmers' wives take care never to have a brood come until that spell is passed. In England, where the wet spells come hap-hazard, the first thing is to take care that young turkeys never go out, on any account (except in dry weather), until the dew be quite off the ground; and this should be adhered to till they get to be of the size of an old partridge, and have their backs well covered with feathers; and in wet weather they should be kept under cover all day long. As to the feeding of them when young, many nice things are recommended—hard eggs, chopped fine, with crumbs of bread, and a great many other things; but that which I have seen used, and always with success, and for all sorts of young poultry, is milk turned into curds. This is the food for young poultry of all sorts. Some should be made fresh every day; and if this be done, and the turkeys be kept warm, not one out of a score will die. When they get to be strong, they may have meal and grain; but still, they always love the curds. When they get their head feathers, they are hardy enough; and what they then want is room to prow about. It is best to breed them under a common hen, because she does not ramble like a hen turkey; and, it is a very curious thing, that the turkeys bred up by a hen of the common fowl, do not themselves ramble much when they get old; and for this reason, when they buy turkeys for stock in America (where there are such large woods, and where the distant rambling of turkeys is inconvenient), they always buy such as have been bred under the hens of the common fowl—than which, a more complete proof of the great powers of habit is, perhaps, not to be found. And ought *not this* to be a lesson to fathers and mothers of families? Ought

not they to consider that the habits which they give their children, are to stick by those children during their whole lives?

“The hen should be fed exceedingly well, too, while she is sitting, and after she has hatched; for, though she does not give milk, she gives heat, and let it be observed, that as no man ever yet saw healthy pigs with a poor sow, so no man ever saw healthy chickens with a poor hen. This is a matter much too little thought of in the rearing of poultry; but it is a matter of the greatest consequence. Never let a poor hen sit; feed the hen while she is sitting, and feed her most abundantly when she has young ones, for then her labour is very great. She is making exertions of some sort or other during the whole twenty-four hours; she has no rest; is constantly doing something or other to provide food or safety for her young ones. As to fattening turkeys, the best way is never to let them be poor. Cramming is a nasty thing, and quite unnecessary. Barley-meal mixed with skim-milk given to them fresh and fresh, will make them fat in a short time, either in a coop, in a house, or running about. Boiled carrots and Swedish turnips will help, and it is a change of sweet food. In France they sometimes pick turkeys alive to make them tender; of which I shall only say, that the man that can do this or order it to be done, ought to be skinned alive himself.”

As I observed already, once the turkey chicks *shoot the red* (which takes place at or about eight weeks old), they may be considered out of danger; hence, many persons conceive it more profitable to buy lean, young poults after they have got the red, and then fatten them for market, to breeding them. If the mortality among the chicks were greater and were not so easily to be avoided by a very little care, this might be the preferable mode of going about the matter; but as it is, there can be no doubt of the greater advantage to be derived from rearing our own chicks.

In feeding the poults, after the second month, it will suffice to give them such boiled common plants and herbs as are of a nutritive character—nettles, wild succory, milfoil, turnip tops, cabbage sprouts, or the outside leaves of greens well boiled down—with these, potato skins and an odd potato or two itself may be given; but it is a bad plan to blend the mass together with the hand, it is much better to *chop* well until an intimate union be effected between the several ingredients. Fowl do not like food that clogs their beak; and food blended up with the hand will do so, while, *if well chopped*, it will be quite as intimately mixed together, but *will not clog*. The meal of buck-wheat, barley, beans, oats,

according to whichever is most plenty with you, will, when incorporated as I have described with potatoes, fatten the poults with great rapidity. You may also use the meal of Indian corn with advantage, but recollect that it requires treble the boiling of oatmeal, and is more salutary when mixed with an equal bulk of the latter. If you desire to meet the market hastily, and with profit, you will be compelled to resort to more expensive feeding than otherwise, but you will be repaid by the result. When the poults are about five months old, or earlier, if it be late in the season and cold weather seems at hand, give them boiled potatoes mashed with meal and then *chopped* small, as I have described. Let this be given *fresh and fresh*, and the vessel in which they are fed well washed daily, as otherwise it will speedily contract a sour smell and become repulsive to the birds, for turkeys are both cleanly and *nice* in their appetite. After having persevered in this feeding morning and evening for about a month, during which time the exercise of the poults should be greatly curtailed, and they should likewise be kept much of their time (especially after meals) in the *dark*, they will be found ready to kill, and, if of a good kind, at least upwards of eighteen pounds weight. Some recommend forcing them to swallow balls of barley meal, and even *deprivation of sight* has been resorted to; but these barbarities are as unnecessary as they are ruffianly. These turkeys are now worth, at least, six shillings a-piece, and have probably cost the breeder about *two*, and that is the very *most* when he is fattening a number at the one time—leaving a fair profit, and far more than can be realized by pigs. I mean, of course, in proportion to first outlay, as the capital embarked in any undertaking must always be taken into account when calculating our profits.

As damp or cold is fatal to turkey poults, so is intense sunshine; and hence they should not be led to pasture under a scorching sun, unless, indeed, care be taken that the walk is shaded. Should rain come, let them be at once housed. Poults should also not be suffered to stray too far, for, independently of the risk they incur, in case of a sudden shower, it must be remembered that they are as yet incapable of encountering any great fatigue, and that their condition will be anything but benefitted thereby. Every district seems to have its own peculiar mode of fattening turkeys. Mr. Dickson recommends a mode of diet that I have never seen tried, and wonder much if it be as efficacious as he seems to imagine.—“No food makes their flesh whiter and

more delicate than kitchen stuff, or the dregs of melted tallow, more or less of which must be boiled according to the number that is to be fed ; and being diluted in a boiling kettle, plants (and especially nettles, chopped up) and pot herbs are mixed with it. The whole being well boiled, barley meal or maize is added (the latter can now be had very cheap), to form a kind of paste, which may be given twice a-day at least—in the morning and at one o'clock—when it is wished to render them fat. But as the dregs of melted tallow are not everywhere to be procured, the dregs or refuse of the oil of nuts, linseed, or sweet almonds may be substituted ; the greatest care being taken not to fatten them wholly with such oily substances, for their flesh would partake of the flavour and be injured."

I have never seen this mode of treatment adopted ; but from what we know of the value of oil-cake in the fattening of our cattle, I have no doubt of its efficacy with turkeys.\* It will always be recollected, in reckoning the advantages with the expense attendant on the rearing of these birds, that, until you want to fatten them for sale or your own consumption, you need be at no pains relative to their food, as they are quite able to provide for themselves, being in this respect superior to any other of our domestic fowl. In thus readily providing for themselves they are also greatly assisted by the easy character of their appetite—grass, herbs, corn, berries, fruit, insects, and reptiles ; in short, hardly anything coming amiss to them.

Turkeys are represented by several of the older writers, among whom I may quote Mascall, as being more a delicacy than profitable. "They do rather enrich the mouth than bring any great profit to the farmer or breeder, and so many turkeys in his court, so many moile colts in his stable, for they are a coffer for oats, and a sack for corn,—a gulfe, a swallower of barns—a devourer of much meat." The turkey evidently found but little favour with Mascall ; but a still more eminent authority thus takes up the cudgels for it :—"Turkeys, howsoever by some writers they are held devourers of corn, strayers abroad, ever puling for meate, and many such like fained troubles, as if they were utterly unprofitable : yet it is certain they are most delicate either in paste or from the spit, and, being fatt, far exceed any household fowl whatever. Nay, they are kept with more ease and lesse cost ; for they will take more paines for their foode than any other

\* I have since learned that this diet is most efficacious in *fattening*, but that it *certainly renders the flesh rank and oily*.

bird, only they are enemies to a garden, and from thence must ever be barred. Till you fat them, you neede not care for foode for them."—*Gervase Markham's "Good and Cheap Husbandrie,"* p. 150.

Audubon says, that, in their native forests, "they cannot be said to confine themselves to any particular kind of food, although they seem to prefer the pecan-nut and winter grape to any other; and, where these foods abound, are found in the greatest numbers. They eat grass and herbs of various kinds, corn, berries, and fruits of all descriptions. I have even found beetles, tadpoles, and small lizards in their crops."—*Ornith. Biog.* l. ii. A favourite repast of this bird in its native forests is said also to be the seed of a kind of nettle, and at another season a small red acorn, on which latter food they soon become so fat that they cannot fly, and are easily run down by dogs.

A writer in the *Sporting Magazine*, whom I have already quoted, while endeavouring to prove that the domestic turkey does not inherit the clever foraging powers of its wild original, effectually clears its character of the imputation of devouring the farmers' crops:—"They are dull and stupid at getting the corn out of the ear, unless very ripe, and will walk through a field of peas or beans without opening a single shell, even if they are ripe."—*Sporting Magazine*, August, 1824, p. 294.

It may not be generally known, that there are many sorts of food which, though nutritious and highly salutary as concerns other fowl, are little short of downright poison to turkeys. Amongst others, I may enumerate vetches or tares, marrowfat peas, and most sorts of pulse, which are little less deleterious to them than such well-known poisons, as hemlock, foxglove, or henbane.

I think I have now afforded my readers not only all the information relative to the management of turkeys that I have been able to collect, but also all that my own experience enables me to add on my part. Mr. Nolan has just handed me a letter he received lately from Miss Neville, a lady who has, with her usual benevolence, been very zealous in promoting the rearing of turkeys amongst her peasantry, and has, in order to aid them in their attempts, devoted much of her own time to the same subject. Miss Neville writes:—

"The following curious method of rearing turkeys is translated from a Swedish book entitled 'Rural Economy:'

"Many of our housewives have long despaired of success in rearing turkeys, and complained that the profit rarely indemnified

fies them for their trouble and loss of time—whereas little more is to be done than to plunge the chick into *cold water* the very hour, if possible—but, at least the very day—it is hatched, forcing it to swallow one whole pepper corn, after which let it be returned to its mother. From that time it will become hardy, and fear the cold no more than the hen's chick; but it must be remembered that this useful species of fowl are also subject to one particular disorder while they are young which often carries them off in a few days. When they begin to droop, examine carefully the feathers on their posterior extremity, and you will find two or three whose quill part is filled with blood; upon drawing these the chick recovers, and after that requires no other care than what is commonly bestowed on other poultry that range the court-yard. The truth of these assertions is too well known to be denied; and, as a convincing proof of the success (of this mode of treatment), it will be sufficient to mention that three parishes in Sweden have for many years used this method, and gained several hundred pounds by rearing and selling turkeys reared in this manner.

“‘The Norfolk turkeys are of this breed (*what breed?*), and do not arrive at their full perfection till their seventh year, but are sent to market at two and at four years old, when they fetch from two to three and four guineas a pair, for the table. They are fed for the last two years chiefly on *sunflower* seed, which makes them attain an enormous size.’”

I trust I have already said enough as to the delicacy of the young turkey-chick, to prevent any person from following the advice of this Swede, as far as the cold bath is concerned. The medical treatment for the *roup* seems just enough; and, as for the fattening of Norfolk turkeys on sunflower seed, it may be very good, but it seems somewhat expensive; and, I think I have pointed out a less extravagant (yet, I hope, not less fattening) diet. Follow my advice as to air and exercise; avoid damp and dirt; pay no attention to the nostrums of ignorant quacks; and, I feel assured that you will find the breeding and rearing of turkeys to be, in its way, one of the most profitable branches of rural economy.

The weight of turkeys has been much exaggerated by careless, ignorant, or, perhaps, credulous writers; and sixty lbs. is, by some, mentioned as a common weight. On the contrary, twenty lbs. is a fair weight for any fat yearling bird (and a very great *weight* for a bird of six months old); thirty lbs. is a fine turkey *of any age*; and few, save the Norfolk, ever exceed forty pounds.

The greatest weight that these have been known to attain, recorded by such authority as we can rely upon, is fifty-six pounds. I have never seen a turkey of sixty lbs. weight; nor do I know any one that has. The hen takes fat more readily than the cock, and is, in proportion to her size, a tenderer and a better dish. The Norfolk turkey, property of Mr. J. J. Nolan, of which we have given a figure, and which obtained the prize at the show of the Royal Dublin Society, 1846, did not weigh quite thirty-five pounds.

#### THE GUINEA HEN, OR PINTADO.

It would be difficult to determine the precise period at which the Guinea fowl was first brought into Great Britain. Its introduction must, at all events, have taken place at a remote date; for we are informed in "Kennet's Parochial Antiquities," that it was well known in England so early as the year 1277. -

The original country of the Guinea fowl is, as its name implies, from Africa; but it is likewise common in America, where it is supposed to be indigenous as well as the turkey.

The Guinea fowl is slightly larger than our ordinary barn-door fowl; but is inferior in size to the larger foreign breeds, as the Malay and Spanish; both in aspect and character it appears to occupy a position intermediate between the pheasant and the turkey.

Although long familiarized, the Guinea fowl has never been fully domesticated, still retaining much of the restlessness and shyness of its primitive feral habits. It is very courageous, and will not only frequently attack the turkey, but even prove victorious in the encounter.

The cock and hen are so nearly alike, that it is not easy to distinguish them; there is sometimes a difference of hue in certain parts; but this difference only occurs occasionally, and, indeed it is on gait, voice, and demeanour that we must chiefly depend.

As a source of profit to the peasant, I cannot recommend these fowl: the eggs are very small, three of them being scarcely equal to an ordinary hen's egg, and the flesh not being likely to please every palate, though, indeed, it is in tolerable request in the London markets, when the game season closes, its flavour resembling pheasant; still, however, as the Guinea fowl require but little trouble or attention to be bestowed on their management, and as their eggs, though of small size, are well flavoured

and numerous, they are generally kept wherever there is accommodation for them. The chief objection to them is their cry, or scream; and even this again has its advantages, invariably predicting a change of weather; nor can they be kept with other poultry on account of their pugnacity. They have been let out on the heaths and mountains in this country, with a view to their naturalization; during summer they did very well, but were unable to stand the winter.

The Guinea fowl dislikes confinement, and will not thrive unless it has free liberty; where such, therefore, cannot be afforded, it is useless to attempt keeping it.

These fowl are prolific; the hen commences to lay in May, and lays throughout the entire summer; for the table they are in season from February to June. The period of incubation is twenty-eight days; but it is more advisable to keep the Guinea hen entirely for laying, and if you desire to hatch any of the eggs, to do so under the hen of the common Gallinaceous fowl. You must keep the male bird away, or he will, like the pheasant, destroy the eggs.

The chicks require no extraordinary care or management; they are able to provide for themselves as early after leaving the shell as the young of any other description of poultry, and their food and treatment may be the same indicated in the directions I have given for the direction of the latter. When designed for the table, let these fowl be killed at an early age; the flesh is then superior to any other fowl at the same age; but when at all old, it is peculiarly tough and repulsive.

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## CHAPTER IX.

### THE GOOSE.

#### THE WILD ORIGINAL.

THERE are several species of wild geese, and they appear to differ essentially from each other. Amongst these may be enumerated four *British* species, and with these we have more to do at present than with any other, as we have clearly derived our common *domestic* goose from some one or other individual of them.

*The wild geese of Britain* are, the Grey-lag, the Bean goose,

the Pink-footed goose, and the white-fronted goose. There are others, but too irregular in their visits to Britain to be properly classed among our British birds, and too unlike our common domestic goose to lead us to suppose them to have had anything to do with the origin of the latter. These are the Brent goose, the Egyptian goose, the Barnacle goose, the Red-breasted goose, the Spur-wing, and the Canada goose.

#### THE GREY-LAG GOOSE,

Or, perhaps, more correctly, the *Grey-legged*, is, unquestionably, the original of our domestic bird, which it closely resembles in form and general appearance; but, at the same time, there is, I think, every reason to believe that some varieties of our tame goose may be traced to the white-fronted wild goose, or *Albifrons*. The Grey-legged goose is about thirty-five inches in length, the female being somewhat smaller. The beak is of a pale flesh colour, with the *nail*, or horny tip, white; the iris is brown; the head and neck of an ashy grey; the inner part of the wings pale leaden grey; belly and under surface of neck white; legs of a very pale flesh colour. The chief characteristics of the Grey-lag are the light, ashy, blue colour of the outer portion of the wing, and the conspicuous white extremity of the beak. Formerly the Grey-lag resided in Britain all the year round, and bred amongst the fens. It is supposed that the system of draining so extensively pursued in the fenny counties—as in Norfolk, Cambridge-shire, and Lincolnshire—has gradually driven them away. The Grey-legged wild goose is now rarely to be met with. It formerly was well known, and even bred in Ireland; but is now rarely seen there even in winter.

#### THE BEAN GOOSE.

This is the common wild goose. Remarkable for a black and bean-shaped *nail* on the bill; hence, according to some, its name, though Mr. Selby conceives it to have been derived from its actual partiality to beans.

The bill of this goose is somewhat shorter than the head, becoming rather slender and pointed towards the end; the base, edges, and nail, are black, and the middle portion orange; head and neck brown, tinged with grey; the front of the neck and breast, and upper portion of the belly, dirty white; lower part of belly, and under surface of tail, pure white; general colour of the upper parts, a brownish grey.

The Bean goose breeds in Britain. Mr. Selby says (speaking of an excursion in the summer of 1834), "We were agreeably surprised to find that the Bean goose annually breeds upon several of the Sutherland lakes. The first intimation we received of this interesting fact was at Lairg, where we were informed that a few pairs' bred upon some islands about twelve miles up Loch Shin. We accordingly took boat the following morning, and, upon arriving at the place, discovered a single pair, attended by four or five young goslings." Mr. Selby states, also, having found others with goslings on the islands of Loch Laighal, and, at Tongue, some goslings that had been hatched from eggs taken at Loch Laighal, following a hen. He was also informed that these, when full grown, remained almost as tame as common geese, but would not intermix or breed with them. Mr. Yarrell also mentions that these birds breed in some parts of Westmorland, and in the Hebrides; also, that a pair of Bean geese produced, in St. James's Park, a brood, in 1842. The egg of the Bean goose is smaller than that of the common goose, but, in every other respect, similar.

The wild goose is common in Ireland and in North Wales during winter. The north seems to be its favourite dwelling-place; and it is very numerous in Norway and Sweden, as also Finland, breeding among the islands. It is a frequent visitor also, to the cold climes of Iceland, Greenland, and Nova Zembla. In the central parts of Europe it is rare; but is to be found in Holland, Germany, Spain, Italy, and France, where it is called the "harvest goose" (*Oie des moissons*) from its partiality to corn, and the destructive effects produced by the ravages of large flocks feeding upon the green crop. In size the Bean goose is somewhat less than the Greg-lag; and it is also much slighter, and apparently better adapted for long flights. When flying, the wild geese usually adopt a peculiar order. If in numbers of four or five only, they usually fly in a straight line, with the leader (usually a vigorous and experienced gander) flying first. If the flock be numerous, they assume a wedge shape like the letter < placed horizontally, the leader being at the apex. This practice must have arisen from the birds having discovered by experience, or having been, perhaps, taught by instinct, that the *angle* thus presented to the air was calculated to diminish atmospheric resistance.

## THE PINK-FOOTED GOOSE

Was first described by M. Baillon, in 1833, and subsequently by Mr. Bartlett (who had not been aware of M. Baillon having done so) in 1839, at the first evening meeting of the London Zoological Society for that year. It is much smaller than the Bean goose, has a shorter and smaller bill, and legs and feet of a *pink colour*. In other respects it is so very like the Bean goose, that, doubtless, it would not so long have remained unnamed, had it not been mistaken for the young of the latter bird. It has been observed of this goose, that when kept in a domestic state with other species, it would keep aloof, and refuse to associate with any of them. The voice of this goose is sharper and shorter than that of the Bean goose; the eggs are also smaller. These birds appear to breed in England in pretty much the same localities as the Bean goose; and they have also been frequently met with at the poulterers. Mr. Macgillivray states, in a paper published some years ago, in the "Annals and Magazine of Natural History," that this bird breeds in considerable numbers in the small *isle of Harris*, and the interior of *North Uist*. It has also been seen and shot in *Ireland*, where, however, it has been almost invariably set down as the common Bean goose; otherwise we should have been made aware of the circumstances as they occurred.

## THE WHITE-FRONTED GOOSE.

This bird visits Britain in almost as great numbers as the common Bean goose, and that chiefly during the winter months, when it is not unfrequently to be met with at the poulterers. Its breeding in this country, in a wild state, is a matter of much doubt; but Mr. Yarrell states that those kept in the zoological gardens, in the Regent's Park, London, bred in 1842. The egg is white, tinged with buff, and is about a third less in size than that of the Bean goose. This bird visits Ireland in great numbers, and deserves, also, particular notice, as being evidently the origin of some of our domestic varieties. This is the common goose of Lapland; and the young are caught and tamed in great numbers by the natives. It is well known in North America, where it breeds on the skirts of the Arctic ocean, and migrates southwards in autumn. The bill of this bird is of a reddish flesh colour; the nail white; the forehead, and base of the upper mandible, also white; whence its name. Its general colour is brownish ash.

dirty white beneath, with broad patches and bars of black ; legs, toes, and the interdigital membranes orange ; the claws whitish horn colour. We can easily find the domestic counterpart of this goose in our poultry yard.

Of these four varieties the Grey-lag and the White-fronted are obviously the originals of our domestic geese. On this subject I shall quote Mr. Yarrell, who establishes the question in a manner at once simple and satisfactory: "Almost all the species of geese, swans, ducks, and mergansers, are remarkable for the peculiar form of their organ of voice, or windpipe ; and so peculiar, as well as permanent, is this anatomical character, that the males of the British species of this family, consisting of about forty, almost all of them, but more particularly the swans, ducks, and mergansers, can be immediately identified by the examination of this organ alone." Again: "In the wild Grey-legged goose, the tube of the windpipe is nearly cylindrical ; and this form of trachea I have frequently found, on examination of domestic geese, intended for the table ; but I have also frequently found the tube flattened at the lower portion—a character which is constant in the *Anser Albifrons*, or White-fronted goose." "The legs of many of our domestic geese are orange coloured, like those of the White-fronted. The legs of the wild Grey-legged goose are of a pale flesh colour."

I have never seen any specimens of the *Albifrons* that have been reclaimed to a state of domestication ; but I had recently the pleasure of seeing two very fine and remarkably tame specimens of the Grey-lag, in the Gardens of the Zoological Society of Dublin, the property of Mr. Nolan. There are, at present, I understand, only *three* specimens of this interesting variety in a state of domestication in the British islands. The third is the property of Lord Orford.

The other wild varieties may be noticed briefly.

#### THE BRENT GOOSE,

Is a small bird not above twenty-two inches in length ; but compensates for its small size in its numbers, and the excellence of its flesh. They are very abundant in the west of Ireland, along the coast ; and it strikes me that sufficient attention is not paid to their capture. This goose is more of a sea bird than any other of its kind, but its flesh is far from being fishy : its food, indeed, is *purely vegetable*, common laver or "sloak" being its favourite. *The colour is grey*, with the head black—neck black all round,

except a small patch on each side; also the shoulders, wings, and upper part of the breast black, as also the legs, feet, and claws. Expeditions have been made to Nova Zembla, to kill and salt these birds, and 15,000 have been killed in two hunts (Scoresby); the females are less than the males, and their plumage is tinged with brown.

#### THE EGYPTIAN GOOSE

Is now generally admitted to be a British bird, though for a long time such specimens as were shot in England were supposed to have been only individuals escaped from confinement. They breed freely in captivity, and lay eggs of a dull white colour, tinged with buff. Yarrell relates that "In the summer of 1838 an Egyptian Goose, in the garden of the Zoological Society, paired with a Penguin drake, and the eggs were productive. The same two birds were kept together in the following season, and the result was more productive eggs. The young birds were preserved, and kept by themselves, experimentally. In the following season many eggs were produced between these hybrid brothers and sisters, the female sat steadily, but the eggs were not productive, and those examined exhibited no appearance of embryotic formation."

The bill is pale, brown in the centre, with the nail, margins, and base, dark—cheeks and sides of the neck pale brownish white—forehead, crown of the head, back of the neck, and shoulders rich reddish brown—the smaller and larger wing coverts white—primary wing feathers tinged with green, and secondaries with reddish brown—legs and feet pink—breast and upper part of belly pale reddish brown. This is a very beautiful bird, but wild and extremely pugnacious in the poultry yard. This is the "Vulpanser," the Goose of the Nile—the Hieroglyphic Goose of ancient Egyptian temples.

#### THE BARNACLE GOOSE.

This is the bird supposed by some of the older writers to have sprung from the small conical sea shell called Barnacle, hence its name. Its visits to Britain are during winter, and the severer the weather the greater the numbers in which they come; although naturally shy they are easily domesticated, and will pair with other species. The Earl of Derby has produced hybrids with this

bird and the Canada goose: and also, I believe, but am not certain, with the White-fronted. They are common in Ireland, and have frequently been taken in the neighbourhood of Dublin. From November to February they are not very uncommon on the stall of the London poulterer. The egg is of a greenish white. This bird is very prettily marked. The beak, and a stripe from the beak to the eye is black—forehead, cheeks, and chin white—top of head, nape of neck, and shoulders black—the rest of the plumage grey, marked regularly with bars of black, and here and there edgings of white—flanks and thighs tinged with grey, disposed in bars—legs, feet, and claws black—about the same size as the Brent Goose, which it resembles, and for which it has sometimes been mistaken.

#### THE RED-BREASTED GOOSE.

Very rare in Britain—supposed to be a native of Asia. The beak black with a white patch between the beak and the eye—round the eye, top of the head, and down the back of the neck is of a brownish black—on the side of the head is an angular patch of chesnut, surrounded with white, and ending in a white streak passing downwards—upper surface of the body and wings dark brown—wing-coverts edged with greyish white—neck and upper part of the breast rich chesnut, red, with a collar of white—lower part of breast black—flanks barred with dark brown—legs and feet blackish brown.

#### THE SPUR-WINGED GOOSE

Is a native of Africa. The bill is reddish yellow with a protuberance at the base of the upper mandible—upper part of head and neck dingy brown—sides of head and throat, white, spotted with brown—all the upper plumage black—in places bronzed with brilliant green—legs and feet reddish yellow—it is very rare in Britain, and little or nothing is known of its habits.

#### THE CANADA GOOSE.

In the slenderness of its make, and the form of its neck, this bird somewhat approaches the swan. The back and wing-coverts are dull brown, each feather having a whitish tip—sides pale ashy brown—upper part of head and neck black, with a broad patch of *white* spreading from the throat over the lower part of the

cheeks on each side—the bill is black—legs and feet greyish black. This bird is easily naturalized amongst us, and affords good flesh for the table; in captivity it readily pairs with the common grey goose, and the young are superior to either parent in point of size. The principle objection to the breeding of the Canada goose, as a member of our poultry establishment, is its not being prolific; and hence not affording promise of being profitable.

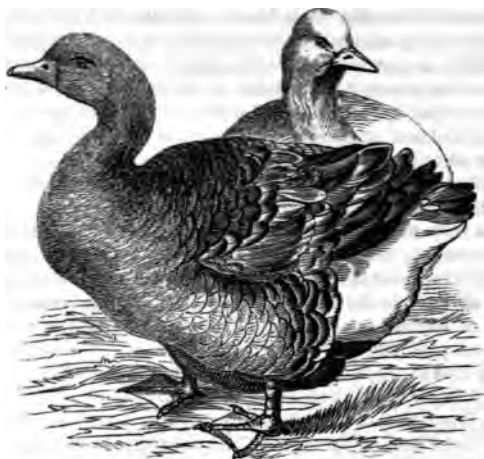
The flesh of the wild geese, with the solitary exception I have named, and which might, during the season of their visit to us, be made a very profitable *industrial resource* of the inhabitants of the west coast of Ireland, is fishy to the taste, and on that account not very fit for table, unless after the preparation of a couple of days *interment* in the earth which has the effect of removing all rankness of flavour—*parboiling* or immersing in boiling water for a short time previous to roasting is also an improvement. The goose is a bird of no mean consequence in history. The Roman geese gave warning of the approach of the foe and saved the Capitol, and it is from this circumstance, according to some, that this bird has since been a favourite Christmas dish. On account of the valuable service rendered by the goose to the Roman state, just mentioned, it had the honour of being eaten with great pomp at important public festivals, amongst which were the *Julian games*. The Romans introduced the goose into Britain; *Yule*, the Scottish term for Christmas, is derived from *Julius*, and hence the goose is a Christmas dish. I confess I think this a little far-fetched, and suspect the true reason to be, that at that period of the year the goose is in the best condition, and fittest for the table.

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## CHAPTER X.

### THE VARIETIES OF DOMESTIC GESE, AND THEIR MANAGEMENT.

Amongst the varieties of our common domestic goose we must first describe one which, though of comparatively recent introduction into the British islands, and as yet not generally to be met with as an ordinary inhabitant of our farm-yards, bids fair, from its unusual size, and capacity of carrying flesh, shortly to supersede every other in the estimation of the fancier or breeder. This is—



THE TOULOUSE GOOSE.

This bird was originally imported from the Mediterranean by the Earl of Derby, and is known indiscriminately by the names of Mediterranean, Pyrenean, or that of Toulouse, which I have here given it. This bird is chiefly remarkable for its vast size, a property in which it casts every other known breed far into the shade, it is indeed the MAMMOTH of geese, and is to be regarded as a most valuable addition to our stock. The prevailing colour of the Toulouse goose is a slaty blue, marked with brown bars, and occasionally relieved with black—the head, neck, as far as the beginning of the breast, and the back of the neck, as far as the shoulders, of a dark brown—the breast is slaty blue—the belly is white, as also the under surface of the tail—the bill is orange red, and the feet are flesh-colour. There can be little doubt of this valuable bird being the unmixed and immediate descendant of the Grey-lag, and it was, indeed, at once pronounced to be such by the Royal Zoological Society of London, at their poultry exhibition of June, 1845, when the pair figured above, the property of Mr. Nolan, of Dublin; obtained the first prize.\*

\* These fine birds also obtained the prize at the exhibition in the Royal Dublin Society's yard, April 1846, and subsequently at that of the Zoological Society of London in the same year, when they were purchased by His Highness Ibrahim Pacha, and taken by that Prince with him to Egypt.

In habit the Toulouse goose resembles his congeners, but appears to possess a milder and more easy disposition, which, I need scarcely add, greatly conduces to the chance of his early fattening, and that also at little cost. Of his other peculiarities I need only observe that the *curl* of plumage on the neck comes closer to the head than in common geese, and that the abdominal *pouch* which, in other varieties, is attendant only upon age, exists in these birds from the shell. The flesh of the Toulouse goose is said to be tender and well flavoured. They are, however, as yet, rather too scarce to permit of ordinary persons trying the experiment—a pair of young half-grown birds, costing from two to three pounds. As a cross with our common domestic goose, I am certain they will be found most valuable, and we may thus expect eventually to arrive at a degree of perfection not hitherto anticipated.

#### THE CHINESE GOOSE

Is another recently introduced variety or breed, of which there are three sub-varieties, each presenting striking points of difference, and yet being sufficiently alike to justify me in classing them together. These are—

##### I. THE HONG KONG.

This bird has a large horny knob on the bill and forehead; its prevailing colour is grey, with a longitudinal stripe of a deep brown running above the back of the neck. The legs are of a red colour, whence it is sometimes distinguished as the “Red Legged China Goose.” This is the same long known amongst us under the erroneous name of the “Poland Goose.”

##### II. BLACK LEGGED CHINESE GOOSE.

Also knobbed, and usually with a *white edging* round the knob, somewhat similar to that of the wild breed called the “White fronted Goose.”

##### III. THE WHITE CHINESE GOOSE.

A very handsome bird, knobbed as the rest, of a snow-white colour, and with legs of a bright orange red.

These geese are inferior in size to the TOULOUSE, but, never-

theless, very fine birds, and worthy the attention of the breeder. The white variety especially, with red legs, is very beautiful, and would form an appropriate ornament on a piece of water. The flesh of the Chinese goose is also good. They feed well, fatten easily, and are very prolific.

Of our ordinary and well-known domestic geese there exists but two sorts, whose only distinction seems to rest in their relative size, they being divided into the *large* and *small*; and by some, according to their colour, into the *white* and the *grey*. These divisions are, to a certain extent, arbitrary; as out of the one clutch you will generally find the several varieties, both as to size and colour, that you seek. I may, however, inform the reader that the best sorts of geese are those which vary least in colour. These approach most nearly to the primitive stock, and are those from which every knowing fancier will prefer breeding. *Grey* is the best colour as coming nearest to the original Grey-lag; white is not quite so good; but avoid *mixed* colours—they will not prove so prolific, and the young will be more difficult to feed up to the required standard.

I have heard it recommended to try the experiment of crossing with the original wild stock. This would, no doubt, be a most excellent plan; but unfortunately the only wild geese now within our reach, unless, indeed, on very rare occasions, are the Bean or the Brent goose—birds even *lighter*, and less adapted to the purposes of the breeder, than the stock more immediately within his reach. The Grey-lag would be the mark; but it is now so scarce that but three specimens are known at present to be in a state of confinement in Great Britain. This was doubtless the plan resorted to by the Spaniards, whom we have to thank for our recent invaluable acquisition of the great Toulouse variety. All we have to do now is to avail ourselves, as far as possible, of the superb cross thus brought within our reach; and we may, ere long, bring up our common breed of grey geese to equal that of the Continent; and I may add, that this suggestion, put forward in the first edition of this work, has been since, and successfully, adopted.

With respect to the favourite colour of which the careful breeder should choose his geese, much has been said. I have merely to recommend that my readers avoid *party-coloured* birds—let them be either grey or white—but do not select birds of two colours; and the old and practical Markham agrees with me in *this*:—"The largest is the best, and the colour should be white

or grey, all of an paire, for pyed geese are not so profitable, and black are worse."

As to breeding geese. These birds, as has been ascertained by M. St. Genis, will *pair* like pigeons; and even if the number of ganders exceed that of the geese, no noise or riot takes place, and mutual choice is evidently the ruling principle. Amongst other experiments M. St. Genis left, besides the patriarch of the flock, two of the young ganders, unprovided with mates, but still those couples that had paired kept constantly together, and the three single ganders never attempted to approach any of the females during the temporary absence of their lords. M. St. Genis also remarked, in the course of his observations, that the gander is more frequently *white* than the goose.

Some writers recommend a gander to be mated with from four to six geese. As I have already remarked, when treating of poultry, this must entirely depend on the object the breeder may have in view. If he desire eggs, and eggs alone, one gander is plenty for six or even eight geese. He may, indeed, abandon the *unnecessary* trouble of keeping a gander at all, but just only occasionally send his geese to his next door neighbour's. It, however, so happens, that keeping geese for the produce of their eggs alone, is anything but profitable; and hence these must be rendered duly fertile; and to effect this, one gander to an almost indefinite number of geese will not answer. For the purpose of hatching, a gander should be mated with, at most, four geese. Let him be, if of the ordinary kinds, amongst which colour varies, of a pure white or ash grey colour; but not at all of *two colours*. Let his size be large, his gait active, his eye lively and clear, his voice ever ready and *hoarse*, and his demeanour full of boldness and impudence. Select the goose for her *weight of body*, steadiness of deportment, and *breadth of foot*—a quality that, however it appears *unfeminine*, happens, in the instance of geese, to indicate the presence of such other excellence as we require.

The goose deposits from ten to twenty eggs at one laying; but, if you do not desire her to sit, you may, by removing the eggs as fast as they are laid, and, at the same time, feeding her highly, induce her to lay on to the number of even forty-five or fifty. This is, however, unusual, and, I may add, that it is unprofitable. When tolerably well-cared, geese may be made to lay, and even hatch, three times in the year. This care consists merely in high feeding and good housing, early in the spring, so as to have the first brood early in March; but I would rather have two good

clutches reared than three had ones, and am, therefore, more disposed to recommend patience and moderation.

The goose will, when left to the unassisted promptings of nature, begin to lay about the latter end of February, or the beginning of March. The commencement of the laying may be readily foreseen by marking such geese as run about carrying straws in their mouth. This is for the purpose of forming their nest, and these individuals are about to lay. They should, then, of course, be watched, lest they drop their eggs abroad; on which account Mascall recommends trying the geese *manually* overnight, and confining such as you find ready to lay. Once a goose is shut up, and compelled to lay her first egg of that laying in any particular nest, you need be at no further trouble about her; for she will continue to lay in that spot, and will not stray, on any account, elsewhere.

We can always detect the inclination of the goose to *set* or *hatch*. This is known by the bird keeping in the nest after the laying of each egg, longer than usual. The hatching nest should be formed of straw, with a little hay as a lining; and so formed that the goose will not fling the eggs over the side when in the act of turning them. You need not banish the gander; on the contrary, let him remain as near the nest as he chooses: he will do no mischief, and will also act as a most vigilant guardian. About fifteen eggs will be found as many as a good-sized goose can properly cover. Do not meddle with the eggs during incubation; and do not meddle with the goose; but, as she is somewhat heavier than the hen of the domestic cock, you may leave her food and drink rather nearer her than is necessary with common poultry, as, if she chanced to absent herself from her eggs sufficiently long to permit them to cool, she might become disheartened, and desert her task altogether. It is, however, unnecessary to put either vinegar or pepper in her food or water, or, in short, to meddle with her at all.

The goose sits on her eggs for nearly two months; but the necessary period of incubation being but one, the early-hatched goslings must be removed lest the more tardy might be deserted. About the twenty-ninth day the goslings begin to chip the shell; and if their own powers prove inadequate to their liberation, aid may be rendered them, and that, also, with much less risk than in the case of other young birds, the shell and its membranes being *very hard and strong*, and the young themselves also hardy, and *capable early of enduring hardship*.

On first being hatched, turn the goslings out into a sunny walk, if the weather will permit of such procedure; but do not try to make them feed for at least twelve hours after leaving the shell. Their food may then be bread, soaked in milk, porridge, curds, boiled greens, or even bran, mixed with boiled potatoes, taking care not to give the food in too hot a state, while you equally avoid giving it cold. Avoid rain or cold breezes; and see, therefore, that the walk into which you turn the young goslings be sheltered from both wind and weather. The goslings should also be kept from water for at least a couple of days after hatching. If suffered too early to have free access to water, they are very liable to *cramp*—a disease which generally produces permanent lameness and deformity, and but too frequently proves fatal.

Geese should have an enclosed court or yard, with houses in which they may be shut when occasion requires. It is better, however, to confine them as little as possible; and, by suffering them to stroll abroad, and forage for themselves, the expense of rearing them will fall comparatively lightly on you, so that you will not be conscious of any outlay. Geese require water, and cannot be advantageously kept when they cannot have access to it; still, however, I have known them thrive where they had no access to any pond or river, but had only a small artificial pool constructed by their owners, in which to bathe themselves. When geese are at all within reach of water, they will, when suffered to roam at liberty, usually go in search of, and discover it, and will, afterwards, daily resort thither. I have frequently myself seen flocks of geese travelling noisily along the road between Harold's-cross and the canal, in the morning, towards the water, and in the evening on their return home. Though the birds are thus fond of water, all damp about their sleeping places must be scrupulously guarded against. Grass is as necessary to the well-being of geese, as water; and the rankest, coarsest grasses—such as are rejected by cattle—constitute the goose's delicacy. Such grasses as they prefer will be found on damp, swampy lands, of which, perhaps, no more profitable use could be made. The stubble-field is, in its season, an excellent walk for geese; for they there not only find the young grass, and other herbage springing up amongst the stubbles, but, likewise, pick up much corn that would otherwise be lost. When the stubble field is not to be had, there is usually something in the kitchen garden that would be wasted if the geese were not turned in; and, observe, *that this is the only season when these birds can be well-fed*

enter a garden; for they are very destructive both to farm and garden crops, and even to young trees. Geese do not answer to be wholly fed on such green food as they can provide for themselves; but if they get a few boiled potatoes occasionally, bruised up with a little bran, and not given too warm, they will be raised for the market at scarcely any cost, and will, consequently, be found very profitable to the farmer. Market gardeners should never be without geese, which would consume all their refuse, and bring money into their masters' pockets, in return for their consumption of what would otherwise be wasted.

Various measures have been adopted for fattening geese. Goslings produced in June or July, will fatten without other food than what they will have afforded them on the stubble fields, as soon as they are ready to consume it; but if you are in haste, give potatoes, turnips, or other roots, bruised with meal, at least, once daily. The goose is very voracious, and only requires to get plenty to eat in order to accumulate fat. Geese, fed chiefly on grass and corn, as I have described, do not, perhaps, attain the same bulk with such as are crammed; but their fat is less rank, and they are altogether much more desirable for the table.

Early geese require home-feeding, as they have no stubble fields. The London feeders, therefore, when they receive goslings from the country about March or April, feed them, first, on meal from the best barley or oats made into a liquid paste, and, subsequently, with corn, to give greater firmness and consistence to their fat.

M. Parmentier describes the French process of fattening. This consists in plucking the feathers from the belly, giving them abundance to eat and drink, cooping them up closely, and keeping them clean and quiet. The month of November is the best time to fatten geese. If the process be delayed longer, the pairing season approaches, which will prevent the birds being brought into condition.

In Poland, geese are, with this view, put into an earthen pot without a bottom, and of such a size as not to allow the bird to move; they are then fed on a paste made of ground barley maize, buck-wheat, boiled potatoes, and milk; the pot is so placed that no excrement remains in it; and the birds get very fat in about a fortnight. Even these modes appear to me cruel and unnecessary; and geese may be made fat enough for any purpose (and, indeed, too much so for the taste of most persons) by *keeping them in coops in a dark place, and laying before them as*

much nutritious food as they can eat. This is certainly done by our Continental neighbours. But then, as soon as the birds' appetite begins to flag (which is usually in about three weeks), they are forcibly crammed by means of a tin funnel, until, in about a month, the poor birds become enormously and unhealthily fat. They must, then, be killed, or they would die of repletion. By this process a disease of the liver is induced, in consequence of which that organ attains an unnatural size, and is regarded as a *bonne bouche* by the gourmand. Ordinary geese may readily be fattened, without cramming, to fourteen or fifteen pounds; cramming will bring up their weight to eighteen or twenty; but the excess consists of rank *fat*, and the flesh is deteriorated in quality, becoming actually unwholesome. The Toulouse geese readily fatten, without any cramming, up to twenty five or even occasionally to thirty pounds weight.

In some countries the barbarous custom of plucking living geese for the sake of their feathers, is resorted to. I am sorry to have to say that this cruel practice still obtains extensively in Ireland, and in Lincolnshire in England. Of its barbarity I presume I need say nothing; but, I may observe, that geese so treated, usually become unhealthy; many of them die; and even of such as survive, the flesh is rendered tough and unwholesome. If it be even true, as is asserted, that the quills cast in the natural process of moulting are of inferior quality, why not *clip* them away close to the skin before that operation of nature begins? Then the geese will only require warmth and housing if the weather be not mild, and you will have the feathers and the geese both unimpaired in quality, and your consciences unburdened by any reminiscence of inhumanity on your part.

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## CHAPTER XL

### THE DUCK—WILD DUCKS.

THERE are many varieties of this family; but we would appear to owe our domestic breed of ducks chiefly, if not wholly, to the mallard, or common wild duck. It will, however, be well that I should take a brief view of the most remarkable wild varieties, though we have not as yet reduced many of them to domestication.

## THE SHIELDRAKE

Seems almost to require an intermediate place between the duck and the goose, as zoologists are not even yet fully agreed relative to his precise position. This is a very handsome bird; perhaps one of the most beautiful of our waterfowl. It is very rarely seen inland, generally keeping to the sea coast, where it often breeds in rabbit-burrows, whence it sometimes receives the name of "Burrow duck," or "Burrow gander." In Scotland it is commonly called the "Skeeling goose." These birds are often taken by snares set at the mouth of the burrows they frequent; and their eggs are also frequently hatched under our common poultry. They are easily brought up in a domestic state, and form one of the most attractive ornaments of our ponds. They are found on most of the sandy coasts of Ireland, and are very common in the Scottish islands, especially the Orkneys, where, Doctor Patrick Neill says, "it has got the name of *Sly goose*, from the arts which the natives find it to employ to decoy them from the neighbourhood of its nest. It frequently feigns lameness, and waddles away with one wing trailing on the ground, thus inducing a pursuit of itself, till, judging its young to be safe from discovery, it suddenly takes flight, and leaves the out-witted Orcadian gaping with surprise." It is likewise found on the coasts of Sweden, Norway, and, according to Temminck, is known in Holland, on the coasts of France, and, also, on the rivers of Germany. The colour of the adult male is—head, and upper part of the neck, green, with a white collar, bounded by a collar of rich chesnut, covering the upper part of the breast, the space before the point of the wings, and the upper part of the back. The central line of the breast and belly is a rich, dark brown; sides, flanks, and under-tail coverts, white; wings chiefly of a white colour; the shoulders and extremities being dark chesnut, brown or black; legs and feet, flesh colour; length about two feet. The female less brilliant in colour, and rather less in size. Colour of the beak in the male vermillion—in the female somewhat paler. The young do not breed till about two years old. The flesh of the Sheldrake is not to be commended; and, hence, I cannot advise any one to take the trouble of domesticating it, unless, indeed, as an ornament.

## THE BUDDY SHIELDRAKE

Has a leaden-coloured bill, head and cheeks buff, a black ring round the bottom of the neck, legs and feet brownish grey, general colour of the superior plumage leaden grey, with some markings of black and white. These birds are, like the wild, and unlike the domestic ducks, disposed to *pair*; and the male is not only very constant to his mate, but is even willing to share with her the duties of incubation; and the female is equally attached, usually remaining beside her husband if he be shot by the fowler, until she herself falls a victim. Flesh, as that of the common Sheldrake, *good for nothing*; size about the same.

## THE PINTAIL.

This duck visits the British islands in winter, and is taken in large quantities by decoys and nets. Its flesh is very good, and its capture is, consequently, a profitable pursuit. The prevailing colour of the upper parts of this duck is a rich grey, the wings being darker, and partaking of the colours of the black, ashy brown, and dark green; the head, cheeks, chin, sides, and upper half of the neck in front, rich dark brown; the top of the head tinged with purple; the long feathers at the tail black—the others dark brown, with white margin; from just above the ear, at each side of the head, runs downwards a white stripe, which, as it arrives at the breast, spreads over it, and down the belly, these parts being perfectly white. The bill is leaden grey on the sides, dark at the base and along the central ridge of the upper mandible. The female has the head of a reddish brown, neck pale brown, and both parts speckled with a darker tint; the under surface of a uniform pale brown; upper parts of the body dark brown, barred with black. This bird is said to have been occasionally killed in Ireland. In the north of England and in Scotland it is very rare. It is known in Russia, Germany, Holland, and France; and is also said to be not uncommon in the western isles of Scotland. The Pintail has been known to breed in captivity, both with the widgeon and the common duck. In December, 1831, the Hon. T. Fiemmes exhibited, at the Zoological Society of London, a specimen bred between the common duck and the male Pintail. It was one of a brood of six, several of which were subsequently confined with the male Pintail, and produced

young; and of this second brood a female was likewise exhibited (*Zool. Proceedings*, 1831).

#### THE SUMMER DUCK.

This beautiful little bird is about the size of a widgeon; the head is crested, and furnished with a pendant mane; bill same length as the head; base and two-thirds of the upper portion of beak black; the nail is of a dark chocolate colour, and sensibly projects over the lower mandible; the beak is deeply serrated at the edges; the crest is of a brilliant iridescent green, changing its tints according to the angle at which the light falls upon it. There is a line of white extending from the base of the bill across the upper part of the crest and mane; and another from the point of the eye to the extreme points of the feathers which fringe the crest. The throat, part of the cheek, and round almost like a collar, reaching to the termination of the mane at the back of the neck, is white; the breast is a chesnut brown, with small triangular specks, which are smallest on the throat, and increase in size as they approach the breast. From the shoulders to the breast, encircling it, are white crescent-like marks; the belly is white;



SUMMER DUCK.

the sides undulating brown; wing coverts brown, tinged with copper and green; the extremities of the wings cross each other; outer margin of quill feathers edged with white; tail covers purple. This is a native of America, where it is, from its arboreal habits, frequently known as the *Tree Duck*, also the *Wood Duck*. It is very easily tamed, and may, without any difficulty, be rendered as familiar an inhabitant of the farm or poultry yard as any domestic variety of duck.

## THE SHOVELLER,

Chiefly characterised by its broad and flattened beak, whence it has derived its name. It is chiefly a winter visitor to this country; but some remain, and breed amongst us. It inhabits marshes and the borders of rivers and lakes. Its flesh is good, ranked by Audubon with that of the Canvass-back. Colour being of head and neck green; lower part of the neck, and part of the shoulders and sides of back, white; middle of the back, dark brown; wings, with their great primary feathers, white; lesser wing coverts, pale blue; rump and tail, black; breast and belly, rich chesnut brown; legs and feet, reddish orange; nails, black; the beak, leaden coloured. The colour of the male varies in summer.

## THE GADWALL,

Very scarce with us, and when seen, generally in spring. Common in Holland during autumn. Beak, lead colour; head and neck, light brown; back, grey; point of wing, chesnut, varied with an orange brown; tail feathers, dark brown, with light-coloured edges; belly, white; side and flanks light-mottled grey; legs and feet, orange, and claws black.

## GARGANEY.

A rare visitor, and usually makes its appearance in the spring. Has been occasionally killed on the east coast of Ireland. The male has a brown bill; head, dark brown, with a stripe of white passing over the eye and ear coverts on each side; cheeks and sides of neck, lighter brown, with short hair-like lines of white; back, dark brown, with bars of a lighter colour; wings, blueish grey, edged with green; belly, white; sides and flanks, white, with transverse black lines, bounded by two broad bands; legs and feet, greyish brown.

## THE EIDER DUCK

Is indigenous to many of the northern parts of England, and some of the Scottish islands: rarer in the southern parts, and in Ireland, where, indeed, it is but a winter visitor. The breast, belly, and sides, are black; the top of the head, velvet black.

on the flank is a white patch ; the under part of the neck is white as also, the cheeks ; the bill is a dirty green. The colour of the female is a pale brown, tinged with red, shaded with markings of a darker brown. She resembles in colour the hen of the Black grouse. This is the bird which yields the celebrated *Eider down*. These birds are easily domesticated ; and the Earl of Derby has several at Knowsley.

#### THE KING DUCK

Is more rarely to be seen in Britain than the preceding. The beak of the male is of an orange colour ; white cheeks, tinged with green ; top of head, greyish ; shoulders, and upper part of back white ; under surfaces chiefly black, with a white patch on the flank. Robert Ball, Esq., secretary of the Dublin Zoological Society, and Director of the Dublin University Museum, has in his possession, a fine specimen of this bird, shot in Ireland ; where it very rarely occurs.

#### THE MALLARD, OR TRUE WILD DUCK.

The undoubted origin of our domestic varieties, was formerly much more numerous in the British islands, than it is at present. Its scarcity is supposed to be owing to the progress of agricultural draining, which has deprived it of many of its accustomed haunts. It still breeds in many parts of Ireland, where it may be met with at all seasons. The full plumage of the male resembles that of many of our most esteemed domestic drakes ; his bill is yellowish green ; head, and upper part of neck, rich metallic green, below that a band of white ; the back and hinder part of neck, chesnut brown, darkening towards the lower part of the back ; rump, and upper tail coverts, blueish black ; four middle tail coverts velvet black, and curled upwards ; the rest an ashy grey, with white edges ; breast, belly, and flanks grey, delicately pencilled in lines ; legs and feet, orange yellow. The female has a greenish black beak, with a black nail : general colour brown the feathers being edged with black. The male is about two feet long ; the female somewhat less. At the close of the breeding season, the male loses his gay plumage, and assumes very nearly the garb of the female, only somewhat darker. A remarkable difference between the habits of this duck, and those of its domes

generis is, that the former is strictly *monogamous*, regularly together, and remaining constant to, a single chosen mate.

#### THE TEAL

the smallest of our ducks, but one of the most highly-prized for its flesh. It remains with us from autumn to the middle of spring. It is very plentiful in Ireland, where it remains in considerable numbers the whole year round. The bill of the male is black; the forehead, and a stripe of the head, reddish brown; from the base of the upper mandible, over the eyes, and to the top of the head, extends a line of buff, and a similar line from the lower edge of the eyes, to a point below and behind the ears; the throat, and between these two lines is rich shining green; the sides of neck, rich chesnut; the upper part of back and shoulders, a grey, composed of alternate lines of white and black; lower part of back, brown; upper part of neck in front, buff; lower part, white, spotted with black, with a pale bluish tinge; legs and feet, greyish brown. This is a small duck, not much exceeding a foot in length. The general colour of the female, resembles that of the female wild duck. These ducks live well in confinement, and will breed freely in captivity, though their pond be circumscribed in extent.

#### THE WIGEON

is found in great numbers during winter; is in high esteem for its table, and is so familiar as not to be difficult of capture. The bill is brownish black; forehead and top of head white; the throat and back of neck reddish-brown; upper part of back and shoulders greyish-white; tail feathers long and pointed; chin and front of neck very dark; lower part of neck and space before the wing, pale brownish red; breast and belly white; legs and feet dark brown: about a foot and a-half long.

#### THE POCHARD,

base and tip of bill black; intermediate part pale blue; and upper part of neck chesnut red; neck below that deep red; back, shoulders, and upper part of wings white, freckled with grey; extremities of wings dark-brown; breast, sides, and

belly, greyish-white; tail feathers greyish-brown: legs and toes blueish-grey; and the membrane darker; about twenty inches in length. The female is somewhat darker in colour, and is as usual, less in size.

There are some other birds usually classed with the ducks, but as they are of no practical utility, and are never domesticated, I do not think I need enumerate them.

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## CHAPTER XII.

### THE DOMESTIC DUCK.

The duck should always find a place in the poultry yard, provided only that it can have access to water; without water it is useless to endeavour to keep these fowl, but even a very small supply will suffice. I myself, have kept them with success, and fattened the ordinary duck in a few weeks, to the weight of eight pounds, with no further supply of water than what was afforded by a large tub sunk in the ground, as I have already described, when treating of poultry-yards. It must be remembered, that the flesh of these birds will be found to partake to a great extent, of the flavour of the food on which they have been fattened; and as they are naturally very foul feeders, care should be taken for a week or so before killing, to confine them to select food. Boiled potatoes are very good feeding, and are still better, if a little grain be mixed through them; Indian meal will be found both economical and nutritive, but should be used sparingly at first.

Some recommend butchers offal; but I may only warn my readers, that although ducks may be fattened on such food to an unusual weight, and thus will be profitable for the market, such feeding will render their flesh rank and gross, and not at all fit for table. In a garden, ducks will do good service, voraciously consuming slugs, frogs, and insects; nothing coming amiss to them; not being *scratchers*, they do not, like other poultry, commit such a degree of mischief in return, as to counterbalance their usefulness.

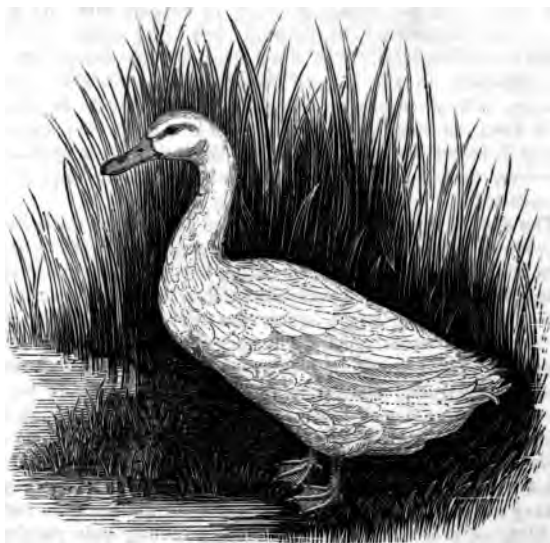
*The duck is very prolific. I recollect reading an account in an English newspaper, of a duck belonging to a Mr. Morrell, of Bel-per Daily, which laid an egg daily for eighty-five successive days*

—this was in 1823-4. The egg of the duck is by some people very much relished, having a rich piquancy of flavour, which gives it a decided superiority over the egg of the common fowl; and these qualities render it much in request with the pastry cook, and confectioner—three duck eggs being equal in culinary value to six hen eggs. The duck does not lay during the day, but generally in the night; exceptions regulated by circumstances, will of course, occasionally occur. While laying, the duck requires more attention than the hen, until they are accustomed to resort to a regular nest for depositing their eggs—once, however, that this is effected, she will no longer require your attendance.

The duck is a bad *hatcher*, she is too fond of the water, and is consequently too apt to suffer her eggs to get cold; she will also, no matter what sort of weather it be, bring the ducklings to the water the moment they break the shell, a practice always injurious and frequently fatal; hence, the very common practice of setting ducks under hens. The eggs of the duck are thirty-one days in hatching; during incubation, they require no turning, or other attention; and when hatched, only require to be kept from water for a day or two; their first food may be boiled eggs, nettles, and a little barley; in a few days they demand no care, being perfectly able to shift for themselves; but ducks at any age are the most helpless of the inhabitants of the poultry yard, having no weapons with which to defend themselves from vermin, or birds of prey, and their awkward waddling gait precluding their seeking safety in flight; a good stout courageous cock, and a sharp little terrier dog, are the best protectors of your poultry-yard. The old duck is not so brave in the defence of her brood as the hen, but she will, nevertheless, although Mr. Waterton thinks otherwise, occasionally display much spirit. I have witnessed this repeatedly, and I recollect a striking painting illustrative of my remark, by that eminent artist Charles Grey, representing a duck rushing furiously on a magpie, which had transfixed a duckling with its talons. Grey, like Landseer, never paints from imagination; he never depicts scenes that could not happen, and he is a close observer of nature.

#### THE AYLESBURY,

A large, handsome, white duck, is a very great favourite, and until the introduction of the variety called Rhone, or Roan, but



THE AYLESBURY DUCK.

more properly Rouen, (as it takes its name from that town on the Seine,) was esteemed the most valuable of all; the latter bird, however, now fairly divides the honour with it, and is by some regarded as superior. The flesh of the Aylesbury duck is of a most delicate flavour, being by many compared to that of the chicken.

THE ROUEN DUCK.

*The Rouen duck is now pretty common; it is of large size; if small is worthless; it is very prolific, and lays eggs of a large size.*



THE ROUEN DUCK.

## THE MUSCOVY OR MUSK DUCK

Does not, as some suppose, derive its name from having been brought from that country, but from the *flavour of its flesh*, and should more properly be termed the Musk-duck, of which its other name is only a corruption; it is easily distinguished by a red membrane surrounding the eyes, and covering the cheeks. These ducks, not being in esteem, on account of their peculiar odour, and the unpleasant flavour of their flesh, are not worth breeding unless to cross with the common variety, in which case, let it be remarked, that the Musk-drake must be put to the common duck; this will produce a very large cross, but *vice versa*, will produce a very inferior one.

The Musk duck is a distinct species from the common duck; and the hybrid race will, therefore, not breed again between themselves, although they are capable of doing so with either of the species from the commixture of which they sprung.

## THE PENGUIN DUCK,

Remarkable for its erect walk; hence its name. The Dutch *hooked-bill*; beak pointing downwards.

## THE CALL DUCK,

The *bantam* of its race, usually coloured like the wild mallard, but often *white*. This colour is preferred by fowlers, who use it in the decoys, as it is easily distinguished from the others.

The Aylesbury and Rouen varieties are the most valuable, and the only varieties to which I conceive it necessary to call particular attention.

The wild duck pairs strictly with a single mate; the domestic drake does not pair, and should have from four to six mates, as circumstances may indicate.

## CHAPTER XIII.

## THE DISEASES OF FOWL, WITH THEIR SYMPTOMS AND TREATMENT.

I MAY here premise that when you see a fowl beginning to droop or to exhibit a deficiency of appetite, if you can conveniently make use of it for dinner, have it killed forthwith. If, however, the fowl be of great value—perhaps a Spanish cock worth a guinea or upwards—we must do our best to save him.

The most common diseases to which fowl are liable, are as follow :—

Moulting.  
Pip.  
Roup.  
Asthma.  
Diarrhoea.  
Indigestion.  
Apoplexy.

Fever.  
Consumption.  
Gout.  
Corns.  
Bloody Flux.  
Costiveness.

## ACCIDENTS.

Producing—

Fractures.  
Bruises.

Ulcers.  
Loss of Feathers, &c.

## MOULTING,

While, as being a natural process of annual occurrence, it can scarcely be called a disease, yet must be treated of as if it really were one, from consideration of the effects which it produces. It is most dangerous to young chickens. With adult birds *warmth and shelter* are usually all that is required, united with *diet of a somewhat extra stimulating and nutritious character*.

Dr. Bechstein remarks, that, in a state of nature, moulting occurs to wild birds precisely when their food is most plenty; hence, nature herself points out that the fowl should, during that period, be furnished with an extra supply of food. After the third year the period of moulting becomes later and later, until it will sometimes happen in January or February. Of course, when this occurs, every care as to *warmth* should be bestowed. The use of Cayenne pepper alone will generally suffice. Do not listen to the recommendation of ignorant or presuming quacks; if this simple treatment do not help them through, they will die in spite of all you may do.

The feathers will at times drop off fowl, when not moulting, to a very considerable extent, rendering them often nearly naked. This is a disorder similar to the mange in many other animals; and the same sort of treatment—viz., alteratives,\* a change of diet, cleanliness, and fresh air—will generally be found sufficient to effect the cure. Be careful not to confound this affection with moulting. The distinction is, that in the latter case the feathers are replaced by new ones as fast as they are cast; in the former this is not so, and the animal becomes bald.†

#### P.I.P.

A disease to which young fowl are peculiarly liable, and that, too, chiefly in hot weather.

The symptoms are—a thickening of the membrane of the tongue, especially towards the tip. This speedily becomes an obstruction of sufficient magnitude to impede the breathing; this produces gasping for breath; and at this stage the beak will often be held open. The plumage becomes ruffled and neglected especially about the head and neck. The appetite gradually goes; and the poor bird shows its distress by pining, moping, and seeking solitude and darkness.

The cause of this disease is want of clean water and feeding upon *hot food*. Dr. Bechstein considers it to be analagous to the *influenza* of human beings. In fact, theories respecting its nature

\* Such as sulphur and nitre, in the proportions of one quarter each, mixed with fresh butter.

† Sulphur has by many been absurdly set down as poisonous to fowl. I can only say, that such an assertion is not only contrary to reason but to practice; in my opinion it is one of the *safest* and most valuable medicines we can employ in the treatment of their diseases.

are too numerous to mention ; and are of very little practical importance.

**CURE.**—Most writers recommend the immediate removal of the thickened membrane. I do not like this. Rather anoint the part with fresh butter or cream. Prick the scab with a needle if you like ; and give internally a pill about the size of a marble composed of—

Scraped { Garlic  
Horse-radish, } equal parts.

As much Cayenne pepper as will outweigh a grain of wheat.

Mix with fresh butter, and give it every morning—keeping the fowl warm. Keep the bird supplied with plenty of fresh water ; preserve it from molestation, by keeping it by itself, and you will generally find it get well, if you have taken the disease in time. Do not let any one, equally ignorant and cruel, persuade you to cram the mouth with *snuff*, after having torn off the thickened membrane with your nail.\* This is equally repugnant to humanity and common reason.

#### ROUP.

The disease to which this term is improperly applied is an inflammation of the tail gland. The true Roup is a disease extremely analagous to influenza in man, or even more so to the well-known distemper among dogs.

The symptoms are—difficulty of breathing ; constant gaping ; dimness of sight ; lividity of the eyelids ; and the total loss of sight ; a discharge from the nostrils, that gradually becomes purulent and fetid ; appetite has fled ; but thirst remains to the most aggravated extent. Sometimes this disease appears to occur independently of any obvious cause ; but dirt, too hot feeding, and want of exercise are amongst the most usual.

As to treatment—many writers have given various directions as to the treatment of Roup. I shall record a case related by an intelligent Middlesex farmer :—

“ A cock, of about four or five months old, apparently turned out by somebody to die, came astray, and was in the last stage of Roup. The discharge from his mouth and nostrils was very considerable, and extremely pungent and fetid ; while his eyes ap-

\* *Miss Manning* recommends forcing tobacco smoke down the bird's throat, and when, as sometimes is the case, the disease depends on the presence of a worm, then it is most successful.

peared to be affected with an inflammation similar to Egyptian ophthalmia. The cock was placed at the fireside, his mouth and nostrils washed with soap and warm water, his eyes washed with warm milk and water, and the head gently rubbed with a dry cloth. Internally he was given long pellets formed of—

|                |   |                                 |
|----------------|---|---------------------------------|
| Barley meal,   | } | equal parts.                    |
| Flour,         |   |                                 |
| Mustard,       | } | equal parts and half the above, |
| Grated ginger, |   |                                 |

He was also given to drink, lukewarm water sweetened with treacle.

“In three days this bird began to see, and in a week his sight was almost perfectly restored. A little mustard was still given him in his water; and then some flour of sulphur. He had also a pinch of calomel in some dough. He was gradually brought out so as to inure him to the cold, and in a month was as well as ever.

“Having moulted late the same bird caught cold at the first frost, and suffered a relapse—from which, however, he was recovered by warmth alone.”

My treatment would be merely a modification of the above—warmth and cleanliness, as matters of course; but, for pellets, I prefer—

|                   |   |   |   |         |
|-------------------|---|---|---|---------|
| Powdered gentian, | . | . | . | 1 part. |
| Powdered ginger,  | . | . | . | 1 "     |
| Epsom salts,      | . | . | . | 1½ "    |
| Flour of sulphur, | . | . | . | ½ "     |

Make up with butter and give every morning.

If the discharge should become fetid, the mouth, nostrils, and eyes may be bathed with a weak solution, composed of equal parts of chloride of lime and acetate of lead.\*

The other affection—that improperly passes under this name, viz., swelling of the tail gland—may be treated as a *boil*. If it become inconveniently hard and *ripe*, let the *pus* or *matter* out with a pen-knife, and it will soon get well.

#### ASTHMA

Is characterised by gaping, panting, and difficulty of breathing.

We need not go far to seek for a cause. Our poultry are originally natives of tropical climates; and, however well they may appear climatized, they, nevertheless, require a more equable tem-

\* Fomentation, with an infusion of camomile flowers, is also highly beneficial.

perature than our climate, unaided by artificial means, can afford. Hence, coughs, colds, catarrh, asthma, pulmonary consumption.

**CURE.**—Warmth, with small repeated doses of hippo powder and sulphur mixed with butter.\*

#### DIARRHŒA

Is occasioned by damp, and sometimes by improper food. Remove the bird into dry quarters; change the food; if it become very severe, give chalk; add a little starch, mixed with Cayenne, to porridge, and give it warm.

#### INDIGESTION.

Caused by overfeeding and want of exercise.

**CURE.**—Lessen the quantity of food; turn the fowl into an open walk, and give some powdered gentian and Cayenne in the food.

#### APPOPLEXY.

**Symptoms.**—Staggering, shaking of the head, and a sort of tipsy aspect. Some persons have, from ignorance of the true cause of this affection, treated it as proceeding from intestinal irritation, and prescribed Castor oil with syrup of ginger, &c. Scanty food, and that of light quality, and the application of leeches to the back of the neck, constitute, in my opinion the only effectual remedy. The *knife* is, however, the true one.

#### FEVER.

Fowl are frequently subject to febrile affections.

The mode of treatment is simple.—Light food, and little of it; change of air; and, if necessary, aperient medicines—such as Castor oil with a little burnt butter.

#### CONSUMPTION.

I regard as incurable; but, if anything will do good, it is change of air and warmth.

#### GOUT.

*Its effects* are obvious. Pellets of colocynth may be used; but

\* The addition of Cayenne pepper will be an improvement.

if you had, as you should have done, killed your fowl before they became *so old*, it would have been more rational. They are now past use. Sulphur may also be found useful.

## CORNS.

These may generally be extracted with the point of a penknife. If *ulcerated*, as will often occur when neglected, touch with lunar caustic, and you may thus succeed in establishing healthy granulations.

## BLOODY FLUX

Generally proceeds from an aggravated diarrhœa. Rice boiled in milk, or starch, usually effects a cure.

## COSTIVENESS.

This affection will, in general, yield to Castor oil and burned butter. The diet should be sparing. Thin porridge will be found useful.

In the case of Fractures, my advice is to put the fowl to death without loss of time. The same may be said of bruises.

The accidental stripping of the feathers must not be confounded with the mangy affection already treated of. The difference will be seen by examining the state of the skin where it is exposed.

Ulcers may be kept clean, dressed with a little lard, or washed with a weak solution of sugar of lead, as their aspect may seem to indicate. If they appear sluggish, they may be touched with *bluestone*.

## THE END.

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